

Purchasing Week

MCGRAW-HILL'S NATIONAL NEWSPAPER OF PURCHASING

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New York, N.Y., April 24, 1961

STEVENS RICE GS
UNIVERSITY MICROFILMS INC
313 N FIRST ST
ANN ARBOR MICH C

PERSONAL PERSPECTIVE 4B
New Products 34

\$6 A YEAR U.S.
AND CANADA \$25 A YEAR
FOREIGN

WHAT MANAGEMENT IS DOING ABOUT PURCHASING ETHICS

I. Asking Internal Questions:

- Do you or your blood relatives have substantial financial interests in your suppliers?
- Can you justify in writing major dollar-value purchasing decisions that did not go to the lowest bid?
- Have you accepted expensive gifts or trips from suppliers?
- Are all your purchases made by competitive bids?
- Will your affairs stand up under a professional audit?

II. Sending Warnings to Vendors:

Dear Supplier: Our policy does not permit outside financial interest which would in any way influence our employees' judgment in transacting business. Gifts and gratuities to our employees are unnecessary. As one of our valued suppliers we ask your cooperation in making our policy on conflicts of interest effective by notifying us of any instances where our policy, in your judgment, is being violated. Sincerely . . .

Industry Seeks Airtight Definition of 'Honesty'



How to Cast Your Troubles Away

By DEXTER M. KEEZER

Economist, Educator, Author,
McGraw-Hill Economic Advisor

Moved by certain strange and wonderful seasonal stirrings of the blood and spirit, I am devoting this column to the distinctive merit of fishing for trout with a dry fly.

And my purpose? A generous purpose to help you purchasing executives, who on the job lead relatively worrisome and harassed lives, know of the unique recreational potentialities in dry fly fishing.

Dry fly fishermen are quite commonly regarded as snobs. This reputation may well spring from the fact that some of them are snobs. I am not.

Although I limit myself largely to fly fishing, and principally dry fly fishing for trout, I visit no general contempt on those who fish with bait, spinners, and other assortments of hardware. Indeed, I am tranquilly resigned to having those who must have fish for food use the techniques most surely and effectively adapted to catching fish, even if they involve the use of nets or spears. Also if those who fish for sport find it in dunking bait, I rarely begrudge them their sport.

As a boy I spent many days from dawn till dark fishing for trout with worms, grasshoppers, and such fauna in Colorado mountain streams. I found the business completely enthralling, and might well still be at it if I had not discovered that far greater recreation is provided by fly fishing, and particularly dry fly fishing.

Contrary to the conviction of many of its devotees, it is not my (Turn to page 19, column 1)

Du Pont, Celanese Clip Synthetic Fiber Prices

New York—Synthetic fiber prices remained uneasy last week following reductions by both DuPont and Celanese Corp. of America.

DuPont led the way, reducing the prices of Dacron polyester staple and tow by 7¢ to 17¢/lb., and nylon staple and tow prices by 4¢ to 15¢/lb. Dacron fiberfill, used as filling material in pillows, comforters, furniture and sleeping bags, was reduced 6¢/lb.

Celanese, reacting to the DuPont move, first withdrew from (Turn to page 4, column 4)

Steady to Lower Prices Trending for Natural Gas

Washington — A series of rapid-fire developments in the natural gas industry point to more stable prices, and perhaps even some downward pressure on gas tags.

Humble Oil & Refining Co. entered a deal to put a huge package of gas reserves (6.2-trillion cu. ft.) on the interstate market from its King Ranch fields in southwest Texas.

President Kennedy got behind a program to speed up gas regulation at the Federal Power (Turn to page 4, column 3)

Rubber Pacts Set Quiet Labor Tone Until UAW Talks

Akron—Goodyear and Firestone negotiated labor contract agreements with the United Rubber Workers last week that may set the tone for other 1961 bargaining.

The settlements seemed to presage general peace on the labor front, at least until summer when Walter Reuther's United Auto Workers confront the automobile industry with a demand that UAW members be put on an annual salary instead of hourly wages.

Biggest negotiations next month come in the telephone industry. The Communications Workers of America, flush from an organizing victory in New York (where 24,000 independents switched to the AFL-CIO (Turn to page 41, column 1)

GM Cuts Pittsburgh Plate In On Glass Trade After 30-Year Tie With LOF

Detroit — General Motors Corp. gave a large portion of its glass business for 1962 to Pittsburgh Plate Glass Co., ending a 30-year stretch during which Libbey-Owens-Ford had been exclusive supplier of glass to GM's Fisher Body Div.

The auto maker had been dealing with LOF on a negotiated basis during this period. Indications were that the contract switch was made on a bid basis.

LOF and GM started their long association in 1931 when LOF purchased for about \$10-million the National Plate Glass Co., a subsidiary of GM located in Ottawa, Ill. GM notified LOF last year that it planned to terminate the contract. At that time, LOF said it expected to retain a "substantial" portion of GM's glass business.

LOF claims to have replaced its loss with additional business (Turn to page 3, column 1)

New York—Justice Dept. and Federal Trade Commission crackdowns on business practices are prompting management to open a full-scale campaign to get codes of ethics into writing. A major result: P.A.'s will find themselves under even sharper scrutiny for conflict of interest.

For the most part, the codes—as they apply to the P.A.—do two things:

- Define conflict of interest in terms that no company employee can misunderstand.
- Set up internal systems of control to remove the possibility of temptation and prevent slipshod or lax administration.

Basically, policies are short and direct, with enough flexibility to be administered. Typical is the section on purchasing in a statement made by a steel company: "Purchases made from companies in which officers and key personnel are materially interested shall be made on competitive basis."

A construction materials company puts it this way: "In order that conflicts of interest may be avoided, each employee who is in a position to influence or control decisions concerning the choice of individual or business concerns with whom the corporation may have business relationships must comply with all provisions of the corporation's purchasing policy, and particularly those having to do with competitive bidding and principles of conduct."

Broadly, conflict of interest (Turn to page 42, column 1)

P/W PANORAMA

Economic Forecasts once involved some guesswork. But a research organization has come up with one promising great accuracy. For the details, see pages 26 and 27.

Buying Insurance in the proper amounts is complicated. 'Personal Perspective' on page 28 gives you some tips, along with other information for your private life.

Magnesium Hasn't Fulfilled all of the rosy predictions once made for it. But producers of the metal are readying a drive to help it regain prominence. A detailed rundown on magnesium is on page 32.

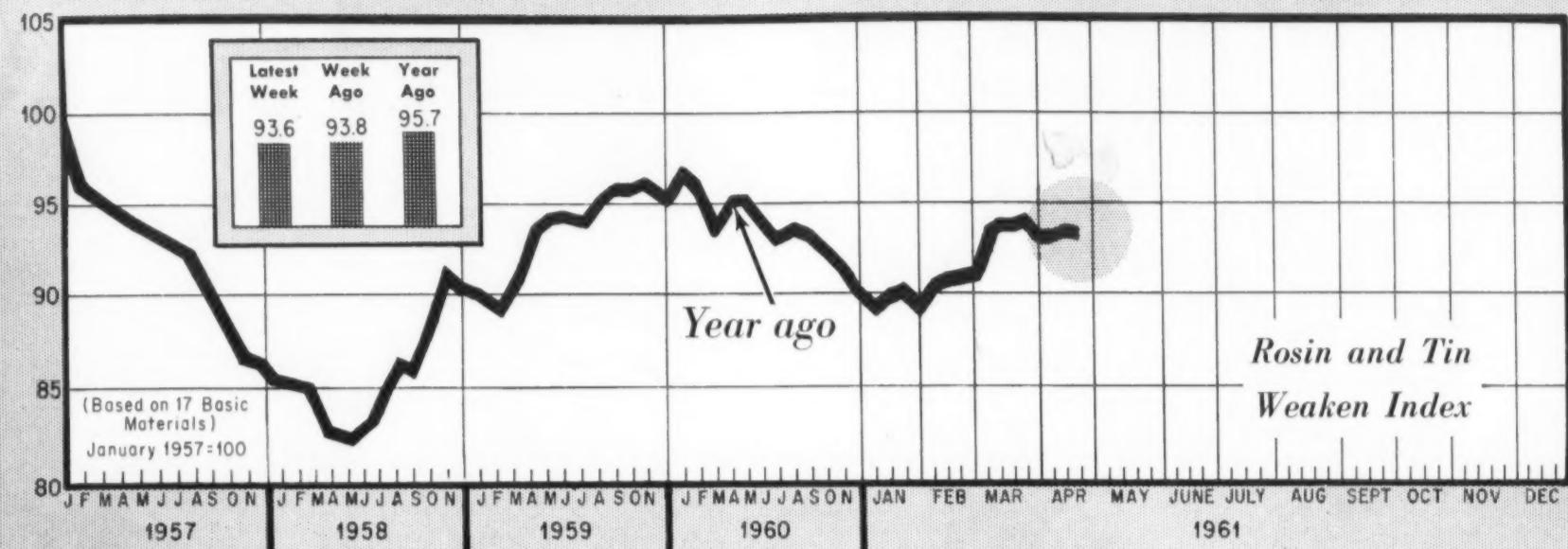
Washington—President Kennedy's program of tax credits on new plant investment—offset by new revenues from other business taxes—is calculated by Administration officials to stimulate purchase of a \$2- to \$3-billion worth of new plant and equipment annually.

Kennedy's tax package is a prelude to next year's effort at major tax reform. It is designed as a quick stimulus to push economic recovery and make U.S. industry more competitive with foreign firms by replacing obsolete equipment.

Business and industry view the package with mixed feelings. Companies that want to invest now will benefit; others may view (Turn to page 42, column 4)

Purchasing Week Industrial Materials Price Barometer

This index, based on 17 basic materials, was especially designed by the McGraw-Hill Department of Economics.



This Week's Commodity Prices

METALS

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Pig iron, Bessemer Pitts., gross ton.....	67.00	67.00	67.00	0
Pig iron, basic, valley, gross ton.....	66.00	66.00	66.00	0
Steel, billets, Pitts., net ton.....	80.00	80.00	80.00	0
Steel, structural shapes, Pitts., cwt.....	5.50	5.50	5.50	0
Steel, structural shapes, Los Angeles, cwt.....	6.20	6.20	6.20	0
Steel, bars, del., Phila., cwt.....	5.98	5.98	5.975	+ .1
Steel, bars, Pitts., cwt.....	5.675	5.675	5.675	0
Steel, plates, Chicago, cwt.....	5.30	5.30	5.30	0
Aluminum, pig, lb.....	.26	.26	.26	0
Secondary aluminum, #380 lb.....	.219	.218	.25	-12.4
Copper, electrolytic, wire bars, refinery, lb.....	.286	.286	.326	-12.3
Brass, yellow, (sheet) lb.....	.481	.481	.506	-4.9
Lead, common, N.Y., lb.....	.11	.11	.12	-8.3
Nickel, electrolytic, producers, lb.....	.74	.74	.74	0
Tin, Straits, N.Y., lb.....	1.075	1.071	.989	+ 8.7
Zinc, Prime West, East St. Louis, lb.....	.115	.115	.13	-11.5

FUELS†

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Fuel oil #6 or Bunker C, Gulf, bbl.....	2.20	2.20	2.10	+ 4.8
Fuel oil #6 or Bunker C, N.Y., barge, bbl.....	2.62	2.62	2.47	+ 6.1
Heavy fuel, PS 400, Los Angeles, rack, bbl.....	2.10	2.10	2.15	-2.3
Lp-Gas, Propane, Okla., tank cars, gal. (net price).....	.035	.035	.04	-12.5
Gasoline, 92 oct. reg., Chicago, tank car, gal.....	.115	.115	.116	-0.9
Gasoline, 84 oct. reg., Los Angeles, rack, gal.....	.103	.103	.108	-4.6
Kerosene, Gulf, Cargoes, gal.....	.096	.096	.09	+ 6.7
Heating oil #2, Chicago, bulk, gal.....	.093	.095	.088	+ 5.7

CHEMICALS

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Ammonia, anhydros, refrigeration, tanks, ton.....	94.50	94.50	90.50	+ 4.4
Benzene, petroleum, tanks, Houston, gal.....	.34	.34	.34	0
Caustic soda, 76% solid, drums, carlots, cwt.....	4.80	4.80	4.80	0
Coconut oil, inedible, crude, tanks, N.Y. lb.....	.13	.128	.175	-25.7
Glycerine, synthetic, tanks, lb.....	.273	.273	.293	-6.8
Linseed oil, raw, in drums, carlots, lb.....	.167	.167	.166	+ .6
Phthalic anhydride, tanks, lb.....	.195	.195	.165	+ 18.2
Polyethylene resin, high pressure molding, carlots, lb.....	.275	.275	.325	-15.4
Polystyrene, crystal, carlots, lb.....	.18	.18	.215	-16.3
Rosin, W.G. grade, carlots, fob N.Y. cwt.....	15.00	15.65	14.00	+ 7.1
Shellac, T.N., N.Y. lb.....	.31	.31	.31	0
Soda ash, 58%, light, carlots, cwt.....	1.55	1.55	1.55	0
Sulfur, crude, bulk, long ton.....	23.50	23.50	23.50	0
Sulfuric acid, 66% commercial, tanks, ton.....	22.35	22.35	22.35	0
Tallow, inedible, fancy, tank cars, N.Y. lb.....	.084	.085	.063	+ 33.3
Titanium dioxide, anatase, reg. carlots, lb.....	.255	.255	.255	0

PAPER

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Book paper, A grade, Eng finish, Untrimmed, carlots, cwt.....	17.75	17.75	17.75	0
Bond paper, #1 sulfite, water marked, 20-lb, 16-carton lots, cwt.....	25.20	25.20	25.20	0
Chipboard, del. N.Y., carlots, ton.....	100.00	100.00	100.00	0
Wrapping paper, std. Kraft, basis wt. 50 lb rolls.....	9.50	9.50	9.25	+ 2.7
Gummed sealing tape, #2, 60 lb basis, 600 ft. bundle.....	6.60	6.60	6.30	+ 4.8

BUILDING MATERIALS‡

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Cement, Portland, bulk carlots, fob New Orleans, bbl.....	3.65	3.65	3.65	0
Cement, Portland, bulk carlots, fob N.Y., bbl.....	4.20	4.20	4.18	+ .5
Southern pine, 2x4, s4s, trucklots, fob N.Y., mftbm.....	116.00	116.00	124.00	- 6.5
Douglas fir, 2x4, s4s, carlots, fob Chicago, mftbm.....	127.00	127.00	139.00	- 8.6
Spruce, 2x4, s4s, carlots, fob Toronto, mftbm.....	87.00	85.00	88.00	- 1.1
Fir plywood, 1/4" AD, 4x8, dealer, crld, fob mill, msf.....	72.00	72.00	64.00	+ 12.5

TEXTILES

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Burlap, 10 oz. 40", N.Y., yd.....	.148	.140	.118	+ 25.4
Cotton middling, 1", N.Y., lb.....	.337	.335	.341	- 1.2
Printcloth, 39", 80x80, N.Y., spot, yd.....	.175	.175	.205	- 14.6
Rayon twill, 40 1/2", 92x62, N.Y., yd.....	.20	.20	.235	- 14.9
Cotton drill, 1.85, 59", 68x40, N.Y., yd.....	.337	.33	.40	- 15.7
Wool tops, N.Y., lb.....	1.59	1.565	1.470	+ 8.2

HIDES AND RUBBER

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Hides, cow, light native, packers, Chicago, lb.....	.175	.182	.225	- 22.2
Rubber, #1 std ribbed smoked sheets, N.Y., lb.....	.315	.305	.401	- 21.4

† Source: Petroleum Week ‡ Source: Engineering News-Record

This Week's

Price Perspective

APRIL 24-30

SOMETHING NEW—The United Auto Workers' (UAW) new proposal for switching factory workers over from an hourly to a salaried basis could have significant repercussions.

All the other unions are waiting to see how the UAW fares on this issue. If the UAW wins out, the idea of a fixed salary for workers could easily spread.

The economic effects of such a development are not hard to figure out.

Most important, it would probably mean higher costs and prices. Under the salary plan, a worker would be guaranteed a full week's pay—even if he works only 30 or 35 hours. This is bound to raise unit labor costs over the long pull.

Of course, to some extent these higher wage costs could be offset by better factory scheduling to permit more efficient utilization of existing manpower. But the vagaries of today's marketing setup—particularly in consumer goods—virtually rule out elimination of seasonal ups and downs in production.

Take the automobile industry, which concentrates most of its production in the first six months of a model year. Under such a setup—with annual shutdowns for retooling—it would be virtually impossible to spread the work even around the calendar. **Only a revolutionary change in automobile marketing would make a salary plan economically feasible.**

• • •
WHY THE UNION DEMAND? Some labor experts see it as a tacit admission on the part of auto labor leaders that they are getting nowhere in their drive to cut unemployment via reduced hours and lower retirement age.

These analysts see the salary drive as another means of achieving the same end. For, as noted above, the net effect of putting workers on a salaried basis would be to spread the available work among a relatively larger number of workers.

But solving the unemployment problem doesn't tell the whole story. The new demands are part and parcel of the recent trend to strengthen job security. Supplementary unemployment benefits, better medical coverage, bigger pension plans, etc. are all aimed at the same goal: guaranteeing an adequate income—in good times and bad—for all industrial workers.

• • •
BUT OVER AND ABOVE THESE CONSIDERATIONS is the psychological appeal that a salary move would have for blue collar workers.

To be put on the salary payroll implies a sharp jump in job status. Thus, any union action that elevates all its members to a higher employment category is (1) bound to meet with rank and file approval, and (2) push the dollar and cents pay boost issue into the background.

• • •
WHATEVER THE OUTCOME OF THE UAW's PROPOSAL, one thing seems certain: There won't be any spectacular wage increase this year. The reasons:

First of all, there's government pressure. President Kennedy has made it clear that inflationary wage and price boosts will be unacceptable.

Other evidence comes from some recently signed labor pacts.

Last week's Firestone agreement, for example, comes to only about 7¢/hr. in terms of actual wage increases. Figured on a \$2.90 base pay of last year that comes out as a percentage boost of only 2.4%.

Much the same picture is shaping up in the cement industry. Dundee Cement, the first company to sign up, reports an 8¢/hr. increase, exclusive of fringes. That's only about 3% on a percentage basis.

All this is in sharp contrast to the pattern of the early '50's when annual pay increases averaged over 5%.

Falling Trend of Gum Rosin Prices Forces Cuts in Tall Oil Rosin Tags

New York—Producers of tall oil rosins moved last week to bring their prices into balance with gum rosin tags, which have been drifting steadily downward. The two products compete with each other for use in paper sizing, compounding rubber, and in esters and coatings for the paper industry.

Glidden Co.'s Organic Chemical Dept., Jacksonville, Fla., started the downward movement with a cut of 1.25¢/lb. on all tall oil rosin prices. Silvaros 80 grade, for example, was reduced from 13.75¢/lb. to 12.5¢/lb. in carlots, and from 13.35¢/lb. to 12.1¢/lb. in tankcars. Other grades also were reduced by the same amount. Prices are f.o.b. Port St. Joe, Fla.

Pittsburgh Plate Becomes New GM Glass Supplier

(Continued from page 1) from other auto manufacturers. The company also is expanding on other directions, it says. Last week, the firm's board of directors approved the erection of a \$10.5-million plant in Lathrop, Calif., for making windshield glass.

Pittsburgh Plate declined to disclose what portion of Fisher Body's 1962 requirements it would supply, but a company spokesman said the contract calls for first deliveries to be made this summer.

The order will provide a big boost for Pittsburgh Plate, which has seen its sales to the auto industry fall off as a result of decisions by Ford Motor Co. and Chrysler Corp. to fill sizable portions of their requirements with the output of captive facilities.

Price Briefs

Beryllium—Brush Beryllium Corp. is cutting the price on blend grade powder by 15%. Reductions will also be reflected in custom fabricated beryllium products. Reductions are being made to stimulate demand.

Potash—An increase of 3¢ per unit of K2O agricultural grades of muriate and sulfate of potash will become effective July 1, according to the American Potash and Chemical Corp. The company noted this is the first general price increase in several years.

Lumber—Prices of green fir lumber are down \$2 a thousand board feet to \$68 at Northwest mills, reflecting a drop off in advance buying.

Portable Compressors—Joy Mfg. Co. is raising tags on 8 models by some 3%-10%. The boost is the first in three years and stems from a reappraisal of manufacturing costs.

Tin Salts—Decline in tin price pushed salts down about 1/2¢/lb. Affected are potassium stannate, sodium stannate and tin crystals, anhyd.

Manganet Wire—Higher production costs are forcing producers to raise quotes on most types of wire by 3%.

(For further late price changes see page 41)

Arizona Chemical Co., subsidiary of American Cyanamid and International Paper companies, went Glidden one better with a reduction of 1.6¢/lb. Example: Acintol R tall oil rosin carlot price was cut from 13.75¢/lb. to 12.15¢. The change applies to rosin from both the company's Springhill, La., and Panama City, Fla., plants.

Other producers are reported to be planning similar reductions, depending on inventory levels.

THIS WEEK'S SCRAP PRICES

	Apr. 19	Apr. 12	Year Ago	% Yrly Change
Steel, #1 hv, divd Pitt, ton.....	35.00	37.00	35.00	0
Steel, #1 hv, divd Clev, ton.....	34.00	34.00	33.00	+ 3.0
Steel, #1 hv, divd Chic, ton.....	38.00	38.00	32.00	+18.8
Copper, #1 wire, dir buy, fob NY, lb.....	.233	.233	.230	+ 1.3
Copper (hv) & wire mix, dir buy, fob NY, lb.....	.218	.218	.210	+ 3.8
Brass, light, dir buy, fob NY, lb.....	.12	.12	.105	+14.3
Brass, hv yellow mix, dir buy, fob NY, lb.....	.12	.12	.115	+ 4.3
Alum (cast), mixed, dir buy, fob NY, lb.....	.10	.10	.11	- 9.1
Alum (sheet), old clean, dir buy, fob NY, lb.....	.095	.095	.11	-13.6
Zinc, old, dir buy, fob NY, lb.....	.035	.035	.045	-22.2
Lead, soft or hard, dir buy, fob NY, LB.....	.07	.073	.083	-15.7
Rubber, mix auto tires, divd Akron, ton.....	11.00	11.00	12.50	-12.0
Rubber, synth butyl tubes, East, divd ton.....	5.75	5.75	7.50	-23.3
Paper, old corrug box, dir, Chic, ton.....	16.00	16.00	18.00	-11.1
Paper, #1 mixed, dir, NY, ton.....	1.00	1.00	6.00	-83.3
Polyethylene, clear, dir, NY, LB.....	.065	.065	.11	-40.9

Bearing Prices Reduced

Peterborough, N. H.—Hampshire Ball Bearings, Inc., cut prices 3% to 7% on catalog items of precision miniature ball bearings.

At the same time, the company eliminated price additions on certain items of advanced design. New prices apply to individual items ordered in production quantities.

The company said a 12% increase in productivity enabled it to make the cuts. The bearings, from $\frac{1}{16}$ -in. to $\frac{1}{4}$ -in. dia., go into space and aircraft instrumentation, and data processing equipment, computers.

O-B Valves have Teflon packing that endures...



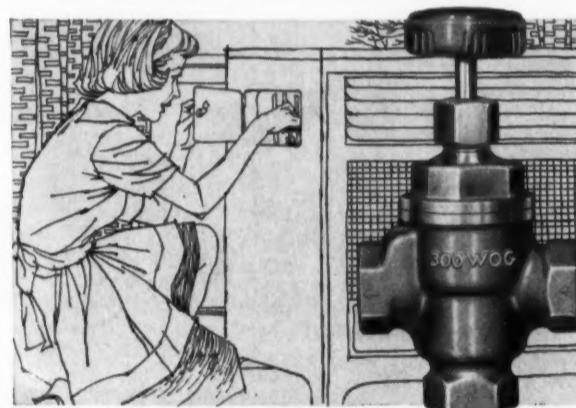
... in sprinkler systems

This O-B No. 408 side-outlet needle valve is ideal for sprinkler systems and in other piping where both "tee" and needle point are needed for effective control. Pressure gauge is often threaded on side outlet. Its tough Teflon-impregnated packing gives long-lasting corrosion resistance.



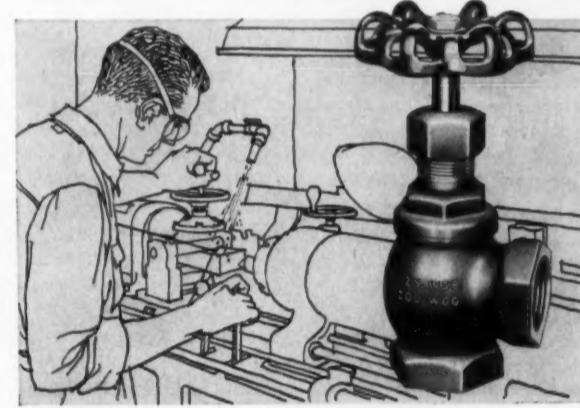
... in gasoline pipelines

Tight shutoff in gasoline and other services makes O-B globe valves (like plug-type No. 1401) most effective—particularly where continual throttling is necessary. The O-B Teflon-impregnated packing safeguards valve operation and helps avert the hazards of corrosion in piping gasoline.



... in room-controlled units

Controlling the output of individual room units in central heating-and-cooling systems calls for this 3-way double-seated by-pass valve. It permits varying output of water to regulate temperature of rooms. Continual on-and-off operation is safeguarded by smooth, flexible, durable Teflon packing.



... in coolant supply lines

Their Teflon packing—impervious to the ravages of oil and other processing fluids—makes O-B globe and angle valves ideally suited for coolant supply. O-B bronze valves such as No. 102 pictured provide tight shutoff of all oil grades. Its semi-plug type brass disc also promotes a tight seal.



Ask your distributor for the valve in the orange-and-black box

O-B valves—first to use long-wearing Teflon packings throughout the line—offer many feature-advantages in sizes from $\frac{1}{8}$ " to 3". You profit most when you standardize on the complete O-B bronze valve line. Write for latest catalog information.

OHIO BRASS COMPANY • Mansfield, Ohio

This Week's

Washington Perspective

APRIL 24-30

The Interstate Commerce Commission is due for a sharp overhaul. President Kennedy's recommendations along this line will not be made public for another couple of weeks. But his feelings about the way the agency has handled, or mishandled, the problems of common carriers are known.

The President believes the ICC has allowed too much unrestrained and destructive competition in the transportation industry. This has promoted, Kennedy feels, increasing competition among common carriers for a shrinking proportion of the nation's freight traffic. He blames ICC and the Federal Maritime Board for the decline in freight traffic on inland and coastal waterways and the Great Lakes.

Sen. Warren G. Magnuson, chairman of the Senate Commerce Committee has called ICC "apologists for a deteriorating system." He says this country does not "now have one healthy mode of transportation."

To try to remedy the situation, Kennedy will send a special message to Congress next month outlining his recommendations. A policy planning group, headed by economist Wilfred Owen of Brookings Institution, is helping Clarence D. Martin Jr., under-secretary of commerce for transportation, prepare the message.

ICC has tried to beat Kennedy to the punch by putting into effect a sweeping reorganization of its own. It is designed to speed decisions and free members of their burdensome load of minor casework by delegating greater authority to examiners. It is doubtful that the President will be satisfied.

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The railroad merger movement is headed for trouble. Labor unions are raising loud complaints about the pattern. So are members of Congress. And the Administration is showing deep concern. On top of all this, the railroads are fighting among themselves about who should merge with whom.

The problem is that the strong want to consolidate with the strong, and the weak are being left out. The Railway Labor Executives, a federation of rail unions, has protested to both the President and Congress that the trend will result in a wholesale loss of jobs and foster monopoly. This point of view has considerable support.

Labor Secy. Arthur J. Goldberg is considering "possible corrective measures." A bill has been introduced in Congress to ban mergers that do not conform with a yet-to-be-formulated government plan, and the Justice Dept. is preparing to intervene in proposed mergers involving Chesapeake & Ohio, New York Central, Baltimore & Ohio, Southern Pacific, Santa Fe, Western Pacific, Atlantic Coast Line and Seaboard.

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High-level officials of electrical equipment companies will appear before Sen. Estes Kefauver (D-Tenn.) this week. Kefauver's Senate Antitrust and Monopoly Subcommittee wants a first-hand report from these executives about alleged get-togethers among competitors to talk about prices and sharing of markets. Last week's witnesses were mostly at the level of sales or plant managers.

First sessions were taken up chiefly by wrangling between Kefauver and Sen. Alexander Wiley (R-Wis.), who maintained that the hearings should not be held because of pending damage suits against the companies. At least, he said, they should be held in private. He lost on both counts.

Last week's witnesses told of meetings among electrical equipment executives, full of discord and argument and only occasionally resulting in a successful agreement to allocate contracts and regulate prices.

Weekly Production Records

	Latest Week	Week Ago	Year Ago
Steel ingot, thous tons	1,784	1,696	2,238
Autos, units	121,935	101,045*	135,402
Trucks, units	25,295	25,054*	25,681
Crude runs, thous bbl, daily aver	7,789	7,899	7,898
Distillate fuel oil, thous bbl	11,487	11,284	12,249
Residual fuel oil, thous bbl	5,581	6,032	6,761
Gasoline, thous bbl	27,994	27,980	28,472
Petroleum refineries operating rate, %	78.5	79.6	80.9
Container board, tons	158,736	156,553	167,502
Boxboard, tons	99,007	97,015	103,323
Paper operating rate, %	87.7	90.4*	96.6
Lumber, thous of board ft	218,881	203,642	260,035
Bituminous coal, daily aver thous tons	1,094	1,151	1,397
Electric power, million kilowatt hours	14,434	14,182	13,263
Eng const awards, mil \$ Eng News-Rec	457.5	364.1	758.3

*Revised

Steady to Lower Prices Seen for Natural Gas

(Continued from page 1)
Commission, and make it "vigorous."

• The FPC's attempt to use area pricing for gas instead of traditional utility methods of regulation began to bog down.

• The Senate seemed willing to confirm two consumer-minded Kennedy nominees to the FPC—but in its own good time.

The Humble move was the most dramatic break. The com-

Texas Loses Tax Fight

Austin, Tex.—Texas has been beaten in its second attempt to tax natural gas buyers, particularly interstate pipelines. Atty. Gen. Will Wilson said he will make no attempt to appeal the recent decision of the Texas Supreme Court, which held the 1959 "severance beneficiary tax" to be unconstitutional on the grounds that it attempted to tax interstate commerce.

Since the act went into effect, 106 pipeline companies, chemical and electric power firms, oil companies and others have paid about \$13,850,000 to the state treasury under protest. They are now eligible for refunds.

pany has been sitting on its King Ranch reserves for some years, reluctant to get involved in FPC regulation. Under the proposed scheme, Humble apparently expects to minimize its dealings with FPC.

The buyer will be the Columbia Gas System, serving Kentucky-Virginia, West Virginia, Ohio, Maryland, Pennsylvania, and southern New York state.

The price of the gas is uncertain, but the terms of the deal indicate that it will at least be stable.

The first of the King Ranch gas is slated to move into Columbia's system by the end of 1962.

Kennedy, in his regulatory agency message to Congress, singled out the "incredible" situation at the FPC as requiring immediate attention. He endorsed a remedy long urged by consumer-state legislators: free the multitude of small producers, who have very little impact on prices, from federal regulation, and work at strictly regulating some 270 big producers, who sell about 90% of the gas moving across state lines.

Kennedy's other ideas for improving gas regulation: increase the FPC from five to seven members; make the chairman responsible to him for the smooth running of the agency; authorize the FPC to let pipelines make non-controversial additions to their facilities without permits; authorize the FPC to follow through on refunded rate increases, to see that they get back to consumers, and authorize the FPC to force proposed rate increases into escrow until it rules on them.

Kennedy's aim is to get some \$850-million in pending pipeline construction applications moving, and to get decisions on about \$1-billion in rate increases that have been collected subject to possible refund.

The freeing of small producers will meet the stiffest opposition. Both large and small producers regard it as a divide-and-conquer

tactic that will clamp a lid on all producer gas prices.

Meanwhile, the present FPC's attempt to set up area-pricing for producers hit a snag.

In a closed-door conference in Washington, producers and consumer-state intervenors reached a stalemate over the presentation of cost evidence in the proposed hearing on Permian Basin area-prices.

The Permian Basin was singled out by the FPC to develop regulatory standards for the new area-pricing method. Cost data is the most complex and controversial type of evidence being considered.

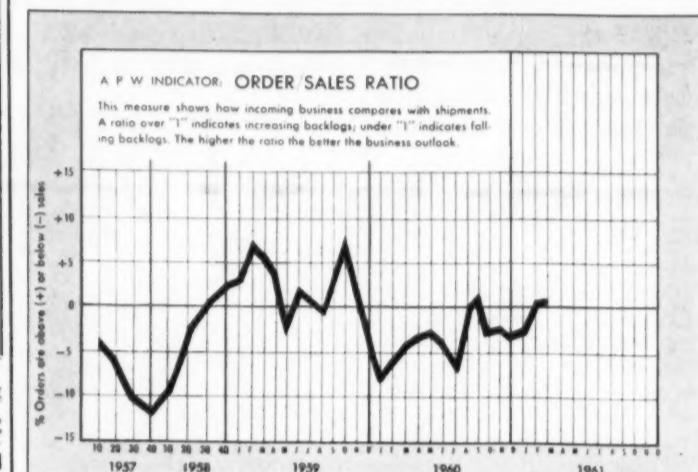
If disagreement persists on cost evidence, the outlook is for

an interminable, inconclusive hearing.

Gas industry spokesmen believe that if Kennedy appointees take over the FPC with area-pricing stalled on dead center, they will scrap this technique, and revert to traditional utility pricing for individual companies.

There is disagreement over whether this alone would bring lower gas prices, but Kennedy's first two appointees to the FPC, Howard Morgan and Joseph C. Swidler, left no doubt in recent Senate hearings that they will be consumer-oriented.

The Senate Commerce Committee has completed hearings on Morgan and intends to hear more from Swidler on May 2.



IN THE PLUS COLUMN: Rising orders keep this key ratio going up. Significant increases in bookings are reported by producers of raw and fabricated metals. Transportation equipment, however, is down.

Du Pont and Celanese Post Cuts On Price Tags of Synthetic Fibers

(Continued from page 1)
sale its Fortrel polyester fiber, which competes with Dacron, and then came down to the DuPont level.

Eastman Chemical Products Co., the third major polyester fiber producer, did not cut prices of its Kodel immediately. However, industry observers saw Eastman and other manufacturers falling into line with DuPont and Celanese.

Synthetic fabric mills still were evaluating the price cuts to determine how much, if any, of the reduction would be passed on to purchasers of fabric containing Dacron or Fortrel.

Normally, the mills would reduce cloth prices in line with the decrease in raw materials costs. They are reluctant to follow through this time, however, in view of the fact that Dacron-cotton blend fabric prices were reduced only several weeks ago by 4¢/yd. finished and 2¢/yd. in the grey.

The new DuPont prices:

Dacron Staple and Tow		
Deniers & types	Old price per lb.	New price per lb.
1.5 54 & 35	\$1.26	\$1.14
1.5 64	1.41	1.24
2.25 & 3 64	1.41	1.24
3 54 & 61	1.36	1.24
4.5 & 6 54 & 61	1.31	1.24
6 64	1.36	1.24
Colorsealed black Fiberfill	1.61	1.44
	1.30	1.24

Nylon (major items)

1.5	2.0	\$1.33	\$1.24
2.3	420	1.28	1.24
3.0	200	1.28	1.24
6.0	100	1.28	1.20
15.0	100	1.08	.95
18.0	501	1.15	1.00

The new Celanese prices on Fortrel are the same as those on Dacron. Celanese, however, produces fewer varieties of polyester fiber than does DuPont. It makes staple in 1.5; 3; 4.5, and 6 deniers. The Celanese polyester tow comes in 3; 4.5, and 6 deniers.

New Price Boost Made On Brass, Bronze Ingot

(Continued from page 1)
showing a better tone. The supply is tight, and the Japanese are still buying heavily, so we're going to have to pay more to get the scrap we need.

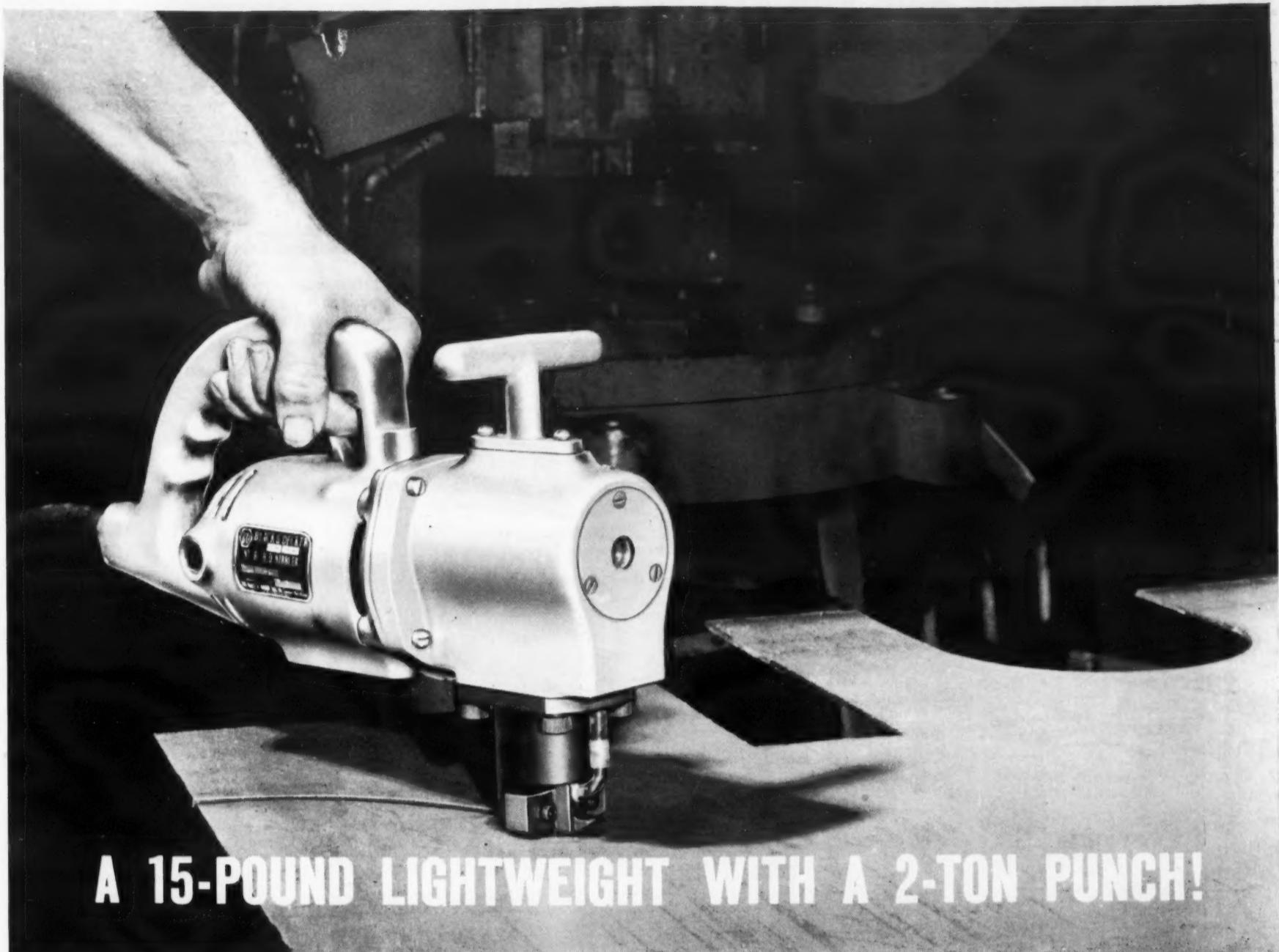
Gap Is Narrowing

"But," he continued, "the gap between what we're paying and the Japanese price for scrap is narrowing considerably. I think our new prices will take care of scrap cost increases without any further hikes."

Scrap supply is especially tight for the 85-5-5 and yellow brass groups where Japanese buying is heaviest.

In the 88-10-2 and 80-10-10 groups, ingot cost pressure comes from high tin prices. "Tin has gone up about 5¢/lb. since our latest price increase," observed one producer.

This latest tag boost may be passed on in the form of scattered price increases among products cast from these ingots.



A 15-POUND LIGHTWEIGHT WITH A 2-TON PUNCH!

Introducing the new Black & Decker No. 8 H.D. Nibbler

Take big bites out of your heavy work, bring the tool to the job and slash cutting costs . . . with the all-new portable Black & Decker No. 8 Heavy-Duty Nibbler. Its 2-ton punching wallop cuts smoothly through 8-gauge plate, goes through heavy-gauge tubing and corrugated (most stainless, too) like a knife through butter . . . replaces torch cutting, eliminates edge grinding.

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its 15-pound weight, compactness and easy-grip T-handle assure perfect cutting control at all times.

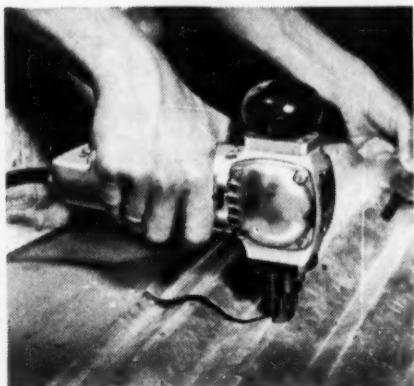
There's a new and improved Black & Decker No. 16 Nibbler, too, for up to 16-gauge metals. See both new Nibblers now. They're sold by leading distributors everywhere. *For sales or service, look in the Yellow Pages of your telephone book under*



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NEW No. 16 NIBBLER speeds through corrugated, straight or circle cuts with the greatest of ease. Won't bend or curl metal. Reversible punch for double life.

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Six Railroads Join New REA Piggyback Pool

New York—Six Eastern and Southern railroads are set as first members of the new piggyback trailer pool operated by REA Express subsidiary REA Leasing Co.

The pool is starting operations with 501 trailers and containers, which will be leased on a per diem basis to railroads who sign up for the service. Eventually, REA Leasing will provide equipment for forwarders, motor carriers and others, including shippers, who desire trailers for piggyback or general use.

Railroad membership will be on either a subscription basis, which includes a commitment for a certain number of trailers, or on a participating basis without trailer commitment.

Charge to subscribing railroads is \$4.50 per day for a standard dry freight than of any length. Participating members will be charged \$5.25/day. Nonmember users are expected to pay a slightly higher charge than members.

REA President William B. Johnson said that eventually

there will be a network of 31 offices throughout the nation to handle centralized control and billing of pool trailers. The leasing company also will handle licensing, tire expense, maintenance and repair, and will absorb all trailer damage in excess of \$100.

The first six railroads to join the pool are: Atlantic Coast Line; Chesapeake & Ohio; Louisville & Nashville; New York Central; Pennsylvania; and Richmond, Fredericksburg & Potomac.

White House Succeeds in Averting Labor Boycott of Imported Textiles

Washington—For the second time in two months, the Kennedy Administration has succeeded in averting a threatened U.S. labor boycott against imports of foreign goods.

The White House has announced the cancellation of a planned May 1 boycott of Japanese cloth by the Amalgamated Clothing Workers of America. The union had threatened to ban work on Japanese goods by its members because of the import

flow rate of Japanese-made suits.

A series of meetings between Secretary of Labor Arthur Goldberg and Jacob S. Potofsky, president of the clothing workers union, paved the way for the end of the boycott threat.

Prior Boycott Averted

Earlier this year, Secretary of Commerce Luther H. Hodges intervened in a similar boycott planned against imports of electronic parts in the Chicago area. M. F. Darling, president of Chicago Local 1031 of the International Brotherhood of Electrical Workers, agreed to postpone a boycott from May 1 until Aug. 1 or later.

Goldberg and his aides convinced the clothing workers to call off their boycott, rather than postpone it. Union leader Potofsky wired President Kennedy:

"I wish to advise you that in compliance with your request, and that of the Secretary of Labor, and in the national interest, the Amalgamated Clothing Workers of America has withdrawn its proposed action to refrain from cutting Japanese textiles in the manufacture of men's suits."

Personal Request by Kennedy

Goldberg had consulted President Kennedy on the boycott threat, and the President made a personal request to Potofsky to call off the May 1 action.

Meanwhile, the Administration is nearing a decision on whether to place import controls on textiles. Kennedy has appointed a Cabinet-level committee to study the problem. The group, headed by Secy. of Commerce Hodges, is about ready to make its recommendations to the White House.

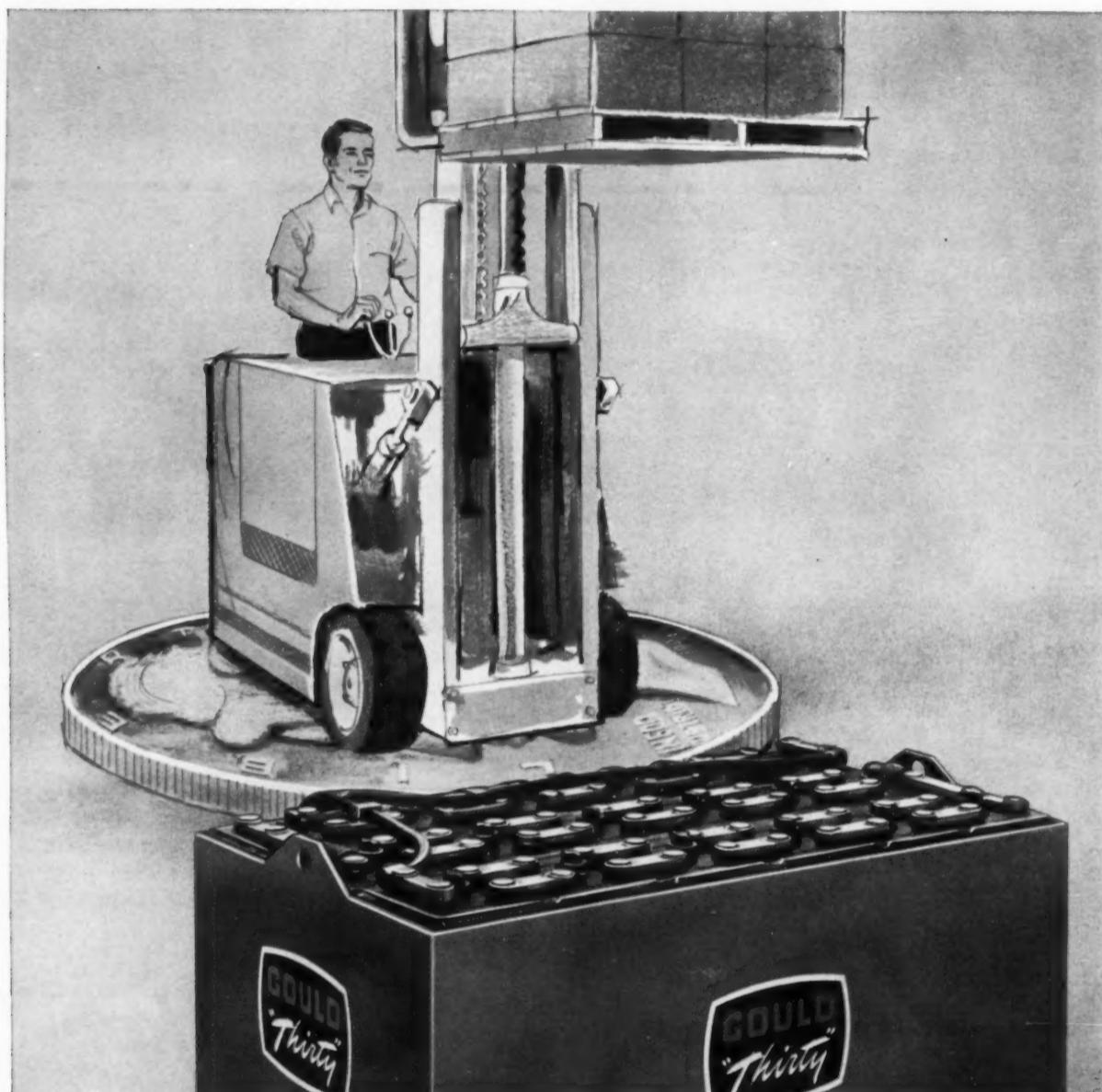
A Senate subcommittee led by Sen. John O. Pastore (D-R. I.) recently concluded textile hearings and recommended that the Administration put strict limits on the amount of textiles that could be imported into the U.S. Other than normal tariffs, textiles are not restricted except by voluntary limitations taken by Japan. The voluntary program is scheduled to expire soon, and Japan and the U.S. State Dept. are in the midst of negotiations over the issue. There is strong pressure in Japan to abandon the voluntary program in favor of unrestricted textile exports.

The committee for a national trade policy, a private group opposed to import restrictions, has asked President Kennedy to avoid textile quotas. The committee proposed that Kennedy instead take action to reduce subsidization of cotton used in domestic mills.

New Sales Unit for Wards

Chicago—Montgomery Ward & Co. has formed a contract and commercial sales department to sell merchandise to major business firms, builders, public and private institutions, and governmental agencies.

A spokesman for the company said the new unit will negotiate sales of merchandise regularly carried in Ward's retail stores and catalogs as well as on special types of merchandise manufactured by the company's suppliers.



Electric Trucks are MORE MANEUVERABLE

Short-wheelbase electric trucks require less turning radius. They are capable of handling loads in much narrower aisles and congested areas. These battery-powered electric trucks make possible an increase in space utilization by reduction in aisle width.

Add maneuverability to a convincing list of other benefits—lower operating costs, less maintenance, clean, quiet and safe operation—and you can see the reason why users prefer battery-powered electric trucks for modern, efficient materials handling.

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Join the list of users who prefer this ideal combination of electric trucks and Gould Batteries. Write or call your local Gould representative. Ask for booklet "Why We Use Battery-Electric Industrial Trucks." Gould-National Batteries, Inc., First National Bank Building, St. Paul 1, Minnesota. In Canada, write to Gould-National Batteries of Canada, Ltd., 1819 Yonge Street, Toronto, Ontario.

More Power to You from GOULD

Smart Borrowers Taking Advantage Of Current Interest Rates on Loans

New York—Cost of inventory and capital equipment loans may have already reached rock bottom—despite Administration pressure for further decreases in interest rates.

Says J. Livingston, business editor of the Philadelphia Bulletin, "If P.A.'s intend to borrow money to expand inventory, now is a good time to do so. The economic upturn is starting, and interest rates don't look to go any lower."

That pretty much sums up the feeling of the financial community that both long and short-term rates have reached their cyclical lows. The current average bank rate on short-term business loans is 4.97%, and corporations are paying around 4.6% for money they borrow through bond issues. Both of these bellwether rates are the lowest since early 1959 it was reported.

Lower in Other Recessions

"Of course, these rates have gone much lower in previous recessions," remarked a top bank economist, "but this recession has been shallower than others all around."

Recent refunding moves by some big borrowers show that they are eager to take advantage of current rates—while there's still plenty of money available—to pay back previous, more expensive loans before the business recovery starts building up interest cost.

AT&T, for example, is actively refunding previous borrowing. Southern Bell floated a \$70-million bond issue on March 21—and paid 4 3/4% to pay back a loan made at 5 1/2%; New England Tel and Tel borrowed \$45-million on April 11 at 4 5/8% to refund a loan made at 5 3/4%. Additional borrowings scheduled by the giant utility are \$30-million on May 2 (for Bell of Pa.) and \$250-million on June 6.

The pickup in refunding operations doesn't seem to jibe with current government pressure to lower interest rates. Both the Federal Reserve Board (FRB) and the President's Council of Economic Advisers (PCEA) are urging lower rates to stimulate business borrowing and, thus, quicken the recovery.

Little Pressure Foreseen

But there is plenty of between-the-lines evidence that the Administration won't really insist on pushing rates below their present levels.

For one thing in the controversy between the FRB and the PCEA which erupted last week, the FRB implied it is satisfied with the extent to which interest rates have already declined.

William McC. Martin, chairman of the Reserve Board, stated, "Interest rates cannot go to and long remain below the point at which they will attract a sufficient volume of voluntary saving to finance current investment at a relatively stable price level."

Two Views

Financial experts have two views on the Administration desire to lower interest rates. Some simply feel that it won't be suc-

cessful. "The market psychology is against it," commented one bank economist. "Lenders sense that the cycle is on the upswing and just won't lend at lower than current rates."

Others think the Administration is just playing it smart. "They feel rates are going up," said one expert, "and they want to keep it to modest proportions. They don't want to see interest costs shoot up until the recovery is under full steam."

Sharon Steel Adopts Swedish Oxygen Process

Pittsburgh—Sharon Steel Corp. is planning to build a \$17.5-million facility that will make steel commercially by an oxygen process developed in Sweden.

The new plant, which will be built at Sharon's Roemer Works in Farrell, Pa., will have an initial capacity of a million tons/yr. Equipment will include two Stora Kaldo basic oxygen furnaces, each rated to produce 150 tons of high-quality steel at a heat.

The Stora Kaldo process varies

the basic-oxygen steelmaking method, in which nearly pure oxygen is blown through molten iron to burn out the carbon by chemical reaction to turn the iron into refined steel. The Stora Kaldo furnace rotates while the steel is being refined. L-D furnaces, used by six other American steel companies to make steel by basic oxygen methods, are stationary during the melting process.

The L-D furnace can refine a batch of steel in less than an hour (in contrast to eight hours or

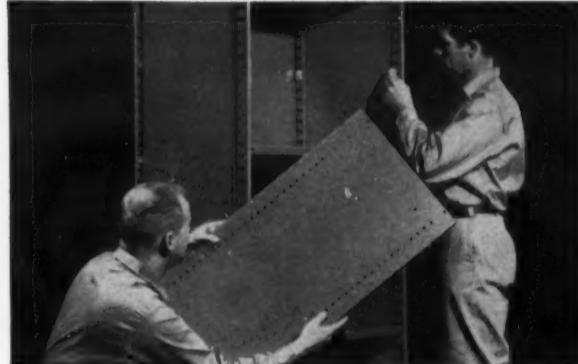
more required in an open hearth operation). While the Stora Kaldo process takes 90 minutes, Sharon claims it has better heat economy, metallic yield and temperature control than an L-D furnace. Reportedly, it can use a higher proportion of steel scrap, which is usually priced below iron ore.

Dravo Corp., Neville Island, Pa., will install the two revolving furnaces. Dravo holds U. S. and Canadian rights for construction, plant design, and manufacturing of the process.

COSTS LESS TO BUY AND ERECT!



New one-piece shelf clips lower shelving costs—can be installed without tools. Made of heavy gauge steel, the clips are strong enough to support heavy loads.



Up to 50% saving on erecting costs. This standard 8-shelf unit was erected by 2 men in less than 10 minutes, thanks to the new one-piece shelf clips.

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New clip-type shelves go in and out without tilting. Shelves need not be unloaded to be repositioned. What's more, no tools are required to make shelf adjustments.



Shelves are adjustable on 1 1/2" centers. This feature, plus the beaded front post, eliminates wasted space—gives more useable storage capacity in less floor space.

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New Book Outlines Evolution of P.A. to Management Status

New York—A new addition to the scant shelf of purchasing books is a volume by University of Miami Prof. Henry G. Hodges, a consultant to the Air Force Institute of Technology at Wright Patterson AF Base, Ohio.

The book **Procurement, the Modern Science of Purchasing** (Harper & Brothers, 49 East 33rd St., New York 16, N.Y., 405 pages. Price: \$7.50), was motivated in part by the author's observation that, with the evolution of purchasing into a top manage-

ment function, "this activity had made greater progress in the past decade than any other in the general area of management."

The book, written in an easy to read style, poses questions about the various responsibilities of purchasing, then gives the reader answers documented by illustrations drawn from personal experience, magazine articles, NAPA publications, and various management sources outside the usual ken of buyers.

In some 400 pages, Hodges

discusses the functional aspects of purchasing practice, such as quality control, price determination, value analysis, expediting, and cancellation. He also devotes four chapters to the management aspects of purchasing, such as organization for procurement and the direction of procurement.

Uses Cases

Hodges winds up each chapter with a short case that poses some problems related to the material in the chapter. The cases are not

so long as some from specialized casebooks, nor do they require computations and depth of analysis in the same sense. They do, however, put theory in the context of a situation so that students can discuss the ideas more concretely.

The book includes the usual materials found in most purchasing texts, but unfortunately does not live up to the publisher's billing that it "explores in depth the significant improvements in procurement in the last 15 years."

Rather, it is a survey of the field of purchasing, which because of its general presentations of operating practices, could also be useful as a home-study aid to the "newcomer" to the purchasing department, or as a good quick review of departmental operating principles and procedures for the manager contemplating a methods change.

The Hodges book concentrates on the operating activities of a purchasing department. But some management educators believe today that a general business student would be better off if we orient him to the managerial considerations rather than specific operating techniques.

States Both Sides

Hodges tackles controversial questions as a purchasing partisan, but he is careful to state the case for both sides. For instance, in discussing the merits of value analysis, he states the purchasing view and then examines the objections of the opposition. "What can value analysis accomplish that ordinary cost reduction cannot?" he asks. "Ordinary cost reduction work is essential, but it is generally considered a part time activity of many individuals, whose efforts are not always coordinated. Value analysis, on the other hand is an intense, professional approach by personnel specially trained in its methods. It is not a substitute for engineering and manufacturing cost reduction work; rather it is a more refined supplement. After design and manufacturing specialists have completed their work on a new project, value analysis can often reduce costs by as much as 25%."

Policy Manuals

Although Hodges believes that every department should have a policy manual, he doesn't overlook the arguments against this management tool. "As with organization charges, some managers contend that manuals minimize flexibility. Nothing could be further from the truth, simply because a good manual provides for periodic reconsideration and changes." Hodges disposes of the argument that manuals freeze policies with this trenchant observation: "The truth is that when flexibility runs wild, it is utterly demoralizing."

Discusses P.A.'s Status

On the subject of the purchasing agent's status in the corporate hierarchy, Prof. Hodges has this to say: "In the past production or finance was his boss. There were reasonable arguments to support both associations, but they have long since passed with respect to medium sized or large departments. The purchasing agent who has worked his way up to director of procurement, through acceptance of top management, counts production and finance as factors, not ultimates, in his progress as a leader of a profit making agency. When that place in the hierarchy has been reached, it is obvious that he should report to the top. Such reporting will not include the details of his job, but, rather discussion of policies. Top management judges the details of his operations by the record of its achievements."



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KNOWN FOR EXTRA CARE

Reynolds Metals Gets Set to Invade Insulated Wire and Cable Markets

New York—Another aluminum producer is taking aim on one of copper's traditional markets—the insulated wire and cable business.

Reynolds Metals Co. expected to begin producing insulated wire products within six months at a newly acquired plant in Chester, Pa.

Aluminum companies, including Alcoa and Kaiser, already are making insulated wire and cable for use in buildings and underground installations.

But the industry as a whole has not made gains as spectacular as those in the overhead power cable field, where aluminum's lightness has been a strong selling point.

Reynolds bought the Chester plant from Ford Motor Co. for \$2.2 million. The 650,000 sq. ft. facility, which had been used for assembling automobiles, was

closed down by Ford last month.

Reynolds already has electrical cable manufacturing equipment, which it recently bought from John A. Roebling's & Sons, Div. of Colorado Fuel & Iron Corp. (see PW, Mar. 6, '61, p. 14).

At the time of the equipment purchase, a Reynolds spokesman said the machinery would enable the company "to offer a broader line of insulated wire and cable than any other manufacturer in the light metals industry."

Oregon Metallurgical Develops New Method Of Melting, Casting Tungsten

Albany, Ore.—Oregon Metallurgical Corp. said it has developed a method for melting and casting tungsten—the metal with the highest melting point of all known elements.

An Oremet spokesman said availability of pure tungsten castings should "substantially reduce" the production cost of tungsten parts by eliminating the need for "rough hogging out" of surplus metal from forged ingots. This is an extremely wasteful process, since a 1,000-lb. ingot may result in three finished products weighing only 30 lb. each, he said.

The Oremet castings come in hollow ring shapes of up to 10-in. outside diameter and weigh up to 220 lb. The company said the castings also have a finer grain than arc-cast ingots.

Eaton Reliance Division Planning Move to N.C.

Massillon, Ohio—Eaton Mfg. Co. said it will move its Reliance Div. from here to North Carolina as a result of rejection by division employees of a 16¢/hr. pay cut. The division produces industrial fasteners.

Eaton had offered to continue operations in Massillon if workers would accept the decrease together with higher productivity standards. Eaton said costs must be cut if the division is to remain competitive with foreign imports.

The company proposals were voted on twice by members of the Allied Industrial Workers Union and rejected both times, even though union officers had urged that they be accepted.

Haloid Changes Name

New York—Haloid Xerox, Inc., plans to change its name to Xerox Corp. The company said the new name would reflect more accurately the importance of its xerographic products for electrostatic document copying.



Automatic Thaw Device

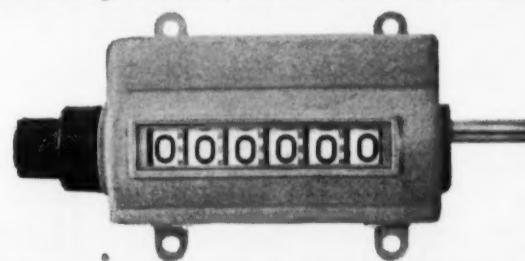
Baltimore—A new automatic thawing device enabled Baltimore Gas & Electric Co. to keep coal stockpiling operations on schedule last winter at a power station here.

The 225-ft.-long facility consists of 36 prefabricated thawing pits, each containing two burners, a pilot and safety equipment. The pits are so arranged that any size car, or combination of sizes in a five-car train, can be thawed without damaging the cars.

The thawing facility was designed by the utility in cooperation with Hauck Manufacturing Co., Brooklyn, N. Y.



Now numbers big enough to see at 20 feet . . . on the Veeder-Root Visicounter! No squinting, no stretching with the new Visicounter. This counter, with larger than ordinary figures, provides easy readout for difficult-to-see locations. And, no matter how hard your machinery jiggles or punches, the Visicounter goes right on scoring because it's built to take it. Whether you're designing new machines or boosting efficiency of present equipment, you'll find that it pays to check into Visicounter. Write: Mechanical Section, Veeder-Root Incorporated, Hartford 2, Conn. count on...Veeder-Root



Visicounter is available in ratchet types, with speeds up to 500 counts per minute, or in geared types with up to 1,000 counts per minute. The new figures, larger and sharper, are another example of Veeder-Root design for maximum efficiency.

P/W MANAGEMENT MEMOS

A collection of timely tips, quotations, and inside slants on management and industrial developments, along with a run-down of events and trends of use to the purchasing agent.

Population and Prosperity

The notion that the national economic growth rate is bound to rise whenever there is a rapid bulge in population is based on the erroneous assumption that consumer spending automatically increases simply because there are more consumers.

The fallacy of this kind of reasoning should be obvious, according to Peter L. Bernstein. Writing in the Harvard Business Review, he takes sharp issue with current economic projections that estimate the gross national product will hit \$790-billion in 1970, based on the present rising population curve.

Just having more people around is not enough, he argues, citing India as an example of an impoverished country that has more people than it knows what to do with. The big question is: Can the U.S. economy maintain full employment in the face of the current population explosion?

"Unemployed or marginally unemployed citizens," writes Bernstein, "might just as well be on the moon as far as the effect they have on the demand for goods and services is concerned. They must have money to spend and jobs by which to earn that money before they affect demand. And, to complete the circle, the jobs they get depend in turn on the growth in the demand for goods and services."

The trouble with most of the projections for the sixties, Bernstein maintains, is that they are based on postwar dynamics that are no longer operating in the economy. The primary motivating force behind the prosperity of the postwar years, as he points out, was the pent-up consumer demand created by war shortages, and rising wage levels due to the failure of the supply of people of working age to grow as fast as the demand for them. Both of these demand factors in turn generated a substantial increase in capital investment by business to expand output and to economize on increasingly expensive use of labor by modernizing plant equipment.

In the absence of these factors that pushed up demand in the postwar period, what will be the dynamic force that will push up demand to a level sufficient to maintain the full employment that is a prerequisite for economic growth? Bernstein's answer boils down to this: We must make a major revision in our economic thinking in order to accomplish the following:

• Stimulate private investment or innovation. This can be achieved by higher spending on research and development and by the willingness of such industries as residential con-

struction to gamble on the future by increasing their building starts.

• Face up to the necessity for more government spending. From the way things look now, demand of private sector for goods and services won't be enough to open up job opportunities as fast as labor force is likely to grow.

• Step up aid to underdeveloped countries. If this aid is given in the form of "tied loans" (i.e., grants that must be spent only on American-made goods and services) our gold position will remain sound.

• Encourage voluntary unemployment—that is, earlier retirement, more time in schools, longer vacations. Naturally, this will mean a smaller rate of growth—but this is a small price to pay for fewer involuntarily employed people. Also, it will be socially beneficial in that it expands our leisure time, which can be used more creatively.

• Encourage increase in productivity—the only source from which true economic progress comes or from which we can get more income with less work. Focus attention on how to use benefits of advancing productivity not on blocking it. This means greater co-operation between labor and management to attain these ends.

Cash Analysis

A new publication of the Small Business Administration spotlights one of the chronic headaches of small businessmen—how to control the commitments for purchased materials. SBA researchers have found that many small firms are remiss in their planning in this area, with the result that accounts payable frequently get out of hand. The book details the sophisticated techniques of planning used by the big corporations and explains how they can be applied to small businesses. The book, called "Cash Planning in Small Manufacturing Companies" (Catalog No. SBA 1.10:1; Price, \$1.25), is available from the Government Printing Office, Washington 25, D. C.

Short Pointer

Baseball may be about to enter a wonderful new era of electronic management. Phil Wrigley, owner of the Chicago Cubs, has decided to employ a computer to help his managers in their day-to-day decisions on the field. Thus, whenever a manager is faced with a tough decision, he can press a button—and the machine, which has been programmed with the statistics on each player's performance, will come up with the right answer. The possibilities are endless: If the experiment works out, it may be possible to eliminate the human factor altogether, turning baseball into a duel of wits between UNIVAC and RAMAC.

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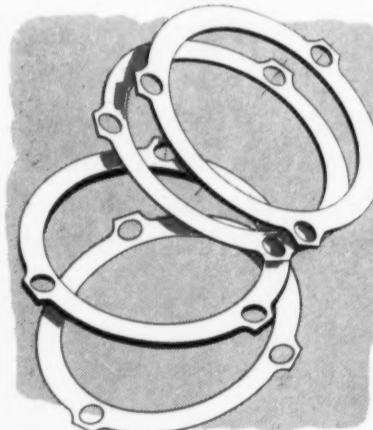
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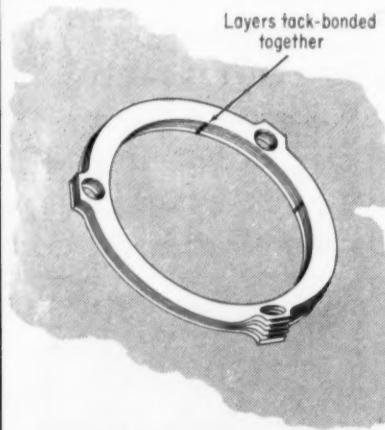
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WHAT VALUE ANALYSIS CAN DO FOR YOU



BEFORE ANALYSIS: Aircraft engine manufacturer needed stock supply of 18 shims of varying thicknesses to make correct adjustments in shaft assembly of engine.



AFTER ANALYSIS: Switch to shims made up of multiple laminations tack-bonded at the edge reduced stock assortment to 3 items. Laminations are removed to get other sizes.

Source: Laminated Shim Co., Glenbrook, Conn.

METHOD:

Standardize to cut inventories.

SAVINGS:

\$45,000 Annually

PURCHASING WEEK ASKS . . .

Who do you think should be on a value analysis team and who should run the show?

Louis Thuringer, purchasing agent, Stone Container Corp., Chicago:

"Our operation requires less formality in value analysis than is found in many other firms. We make much of the raw material we use—boxboard and corrugated stock. At the informal sessions that are held, we call in management people directly concerned: plant purchasing agent, project engineer, sales manager for end product, and sometimes the plant manager. We feel the plant purchasing agent should be in charge; for multi-plant purchases it should be the general purchasing agent."



David Parker, purchasing agent, Mercury Electronics Corp., Mineola, N. Y.:

"It should consist of the engineering, production, and purchasing departments. I feel production should run the show because in the final analysis it makes the ultimate decision. No matter how much the engineering and purchasing departments save, if it is not workable or production has to use four times as much labor there is no savings."



R. W. Stenstrom, purchasing agent, Oscar Mayer Packing Co., Los Angeles:

"In a medium-size plant such as ours, I think the purchasing agent, industrial engineer, production superintendent, and mechanical superintendent should be teammates. I dislike the term 'who should run the show,' but I believe it is important that the purchasing agent lead the team or coordinate activities. Don't forget that good sales representatives can also give invaluable aid and suggestions to the value analysis program."



W. F. Rae, Jr., purchasing manager, Mennen Co., Morristown, N. J.:

"In the average company, purchasing should administer and supervise the value analysis program, since most of the savings will come from the firm's suppliers. However, purchasing should work closely with product development, engineering, production, and other pertinent departments. In a few companies that are extremely engineering oriented, it might prove beneficial to have such a program administered outside of purchasing. Even in such cases purchasing would play a major role."



F. J. Curtis, purchasing agent, Sprague & Carleton, Inc. (household furniture), Keene, N. H.:

"Here, everybody gets into the act—from top management on down. The value analysis team consists of the general manager, the design engineer, the purchasing agent, and anyone else involved in this change. On some occasions the supplier is called in to join the team. No one in particular is designated to run the show, but it usually ends up with purchasing."



W. J. Zarobosky, director of purchasing, Howard Foundry Co., Chicago:

"Every application for a product is first cleared through our plant managers, then through foremen or departmental heads. Control of all tests and reports by purchasing are necessary for intelligent reports to suppliers and general management. Our multiple-plant operations present the problems of each plant requiring different supplies for similar production use."



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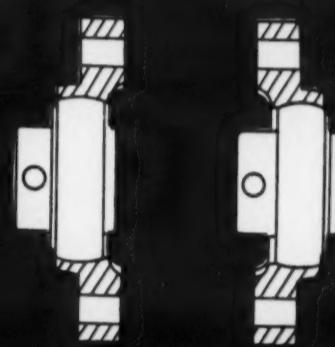


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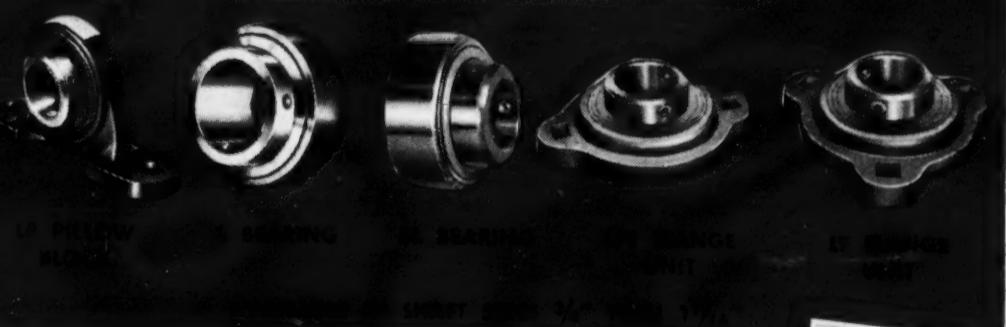
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This Week's

Foreign Perspective

APRIL 24-30

Tokyo—Export prices on a variety of Japanese steel products rose last week from \$2 to \$15 a metric ton. At the same time, I-beam prices were withdrawn from the export listing due to heavy domestic demand. I-beams had been quoted in late March at \$125/metric ton f.o.b. Japanese port.

New prices include:

• **Bars.** One-half inch and larger sizes are quoted at \$100/ton, up \$2. Quarter-inch bars are \$105, up \$3.

• **Angles.** Medium sizes now are \$120, up \$12; small sizes are \$130, also up \$12. Large size angles are \$135, up \$15.

• **Channels.** Small and medium sizes are \$135/ton, up \$15, while export prices on large channel sizes have been withdrawn.

Shipment on all these items is listed for September-October.

London—Tin prices on the London Metal Exchange are expected to continue their upward trend, but experts see little likelihood of a runaway market.

Partly as a result of increasing U. S. demand, the price rose to \$2,368 per long ton, before dropping off by about \$25. This is still well above \$2,324, the level at which sales from the International Tin Agreement buffer stock are authorized.

The buffer stock manager is believed to have sold about 500 tons so far in an effort to control the rising price. Observers point out that he will have to proceed cautiously in order not to exhaust the stock of 10,000 long tons.

• • •

Toronto—Heavy Bolt Div. of Steel Co. of Canada, Ltd., has announced new net prices on standard bolts, cap screws, set screws and nuts, which will become effective May 1.

Colorado Springs, Colo.—It is unlikely that tariffs on brass imports to the U. S. will be raised, Austin R. Zender, president of Bridgeport Brass Co., told a meeting of copper and brass distributors here. As a result, U. S. mills must rely on cost cutting and increasing efficiency to combat foreign competition, he said.

Zender added that domestic producers also should emphasize the disadvantages of "buying foreign," which he said include:

- The greater chance of periodic shortages, since foreign producers take care of their home markets first.

- Longer delivery times, which make it necessary to carry higher inventories.

- Lack of customer and technical service.

- Delays in getting defective merchandise replaced and difficulties in obtaining samples.

• • •

New York—There is no need to make U. S. import regulations any more restrictive than they now are, claims W. Van Cauwenberg, Commercial Minister of the Belgian Embassy. As it is, the regulations read to the foreign trader like so many highway signs saying "Slow," "Detour Ahead" and "Soft Shoulder," he told a luncheon here of the Belgian Chamber of Commerce in the U. S.

In particular, Van Cauwenberg criticized those states and local agencies that exceed the limits of the "Buy American Act" (which prohibits under certain circumstances the use of federal funds to purchase foreign goods for the supply of federal departments) by banning foreign products altogether. He said such actions are in a violation, not only of Belgium's Commerce Treaty with the U. S., but also of GATT and the commerce clause of the U. S. Constitution.

• • •

Bonn—West Germany expects to produce over 100-million tons of plastic materials this year, compared with only 120,000 tons ten years ago. To cope with increasing demands of processors, plastic manufacturers here plan to invest \$150-million for improved equipment by mid-1962 in an effort to break the labor bottleneck which, right now, is the number one headache of German industry.

• • •

Tokyo —Crown Zellerbach Corp. has signed an option agreement with the Noguchi Institute here for the exclusive American and Canadian rights to the Institute's process for obtaining phenolic compounds and neutral oils from lignin. A constituent of wood, lignin generally is discarded as waste or burned at most pulp mills.

Projected markets for the lignin derivatives include such items as agricultural chemicals, resins, additives for petroleum and rubber products, disinfectants, plasticizers, antioxidants, and adhesives. The Institute, which has been using the process on a pilot plant scale for the past two years, believes that phenolic compounds can be produced less expensively from lignin than from coal tars and petrochemicals.



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Foreign News in Brief

Thor to Expand Market

Turin, Italy—Thor Power Tool Co., Aurora, Ill., hopes to expand world markets for Italian-produced power tools through its new subsidiary here, Fabbrica Italiana Apparecchi Pneumatici (FIAP).

A Thor spokesman said the (FIAP) staff will remain intact and that a program for exchanging the design and technical resources of the two companies will be started immediately. Both companies produce pneumatic tools for industrial and construction markets.

Yawata Expands

Tokyo—Japan's booming steel industry got another shot in the arm with the announcement by Yawata Iron & Steel Co., the nation's top iron and steel producer, that it plans to build a huge new mill at Kisarazu, about 40 miles east of here.

The building site extends over an area of 3,000 acres. Plans call for six blast furnaces of 2,000-ton capacity, which will be able to pour some 7-million tons of crude steel annually upon completion. The steel will be processed into all kinds of products, including wire, plate, pipe, sheets, and bars. The mill is expected to be ready for operation by 1970.

Aluminium to Build

Kuala Lumpur, Malaya—Aluminium, Ltd., plans to build the first aluminum rolling mill in Malaya through the formation of a new subsidiary, Alcan Malayan Aluminum Co., Ltd.

The new plant, to be located near Kuala Lumpur at Petaling Jaya, will produce aluminum circles and flat and corrugated sheet. It will have a capacity of 2,000 tons annually. Work on the \$1.3-million project is expected to begin immediately.

Fisons Revamps Setup

London—Fisons, Ltd., has revamped its overseas chemical operations as part of a new export drive aimed chiefly at South America and the U.S.

Fisons Chemical Div. has been renamed Fisons Overseas, Ltd., and will control all export activities of companies in the chemical division which already account for nearly 40% of total sales. Fisons Overseas will be responsible for licensing group products for overseas manufacture. It will be associated with 20 group companies operating abroad.

Particular stress will be placed on the pharmaceuticals market, for which mobile team of experts is being made available. Group chairman Sir Clavering Fison said the board is considering a major plan for bringing chemical earnings at least up to the level of fertilizer figures.

UK Polystyrene Price Cut

London—Polystyrene producers in the United Kingdom are cutting prices again in an effort to broaden their markets and to counter foreign competition.

Monsanto Chemicals, Ltd., led the way in the latest round of decreases, reducing the price of its

crystal grade polystyrene 4¢/lb. National Distillers Co., Ltd., followed, cutting the prices on the full range of polystyrene products made by its two associates, Distrene, Ltd., and B. X. Plastics, Ltd. The National Distillers reductions range from 2¢-4¢/lb., depending on grade, color and quantity.

Shell Chemical Co., Ltd., said it would also cut prices. Shell was the first company to lower polystyrene prices in the general reduction which took place last August.

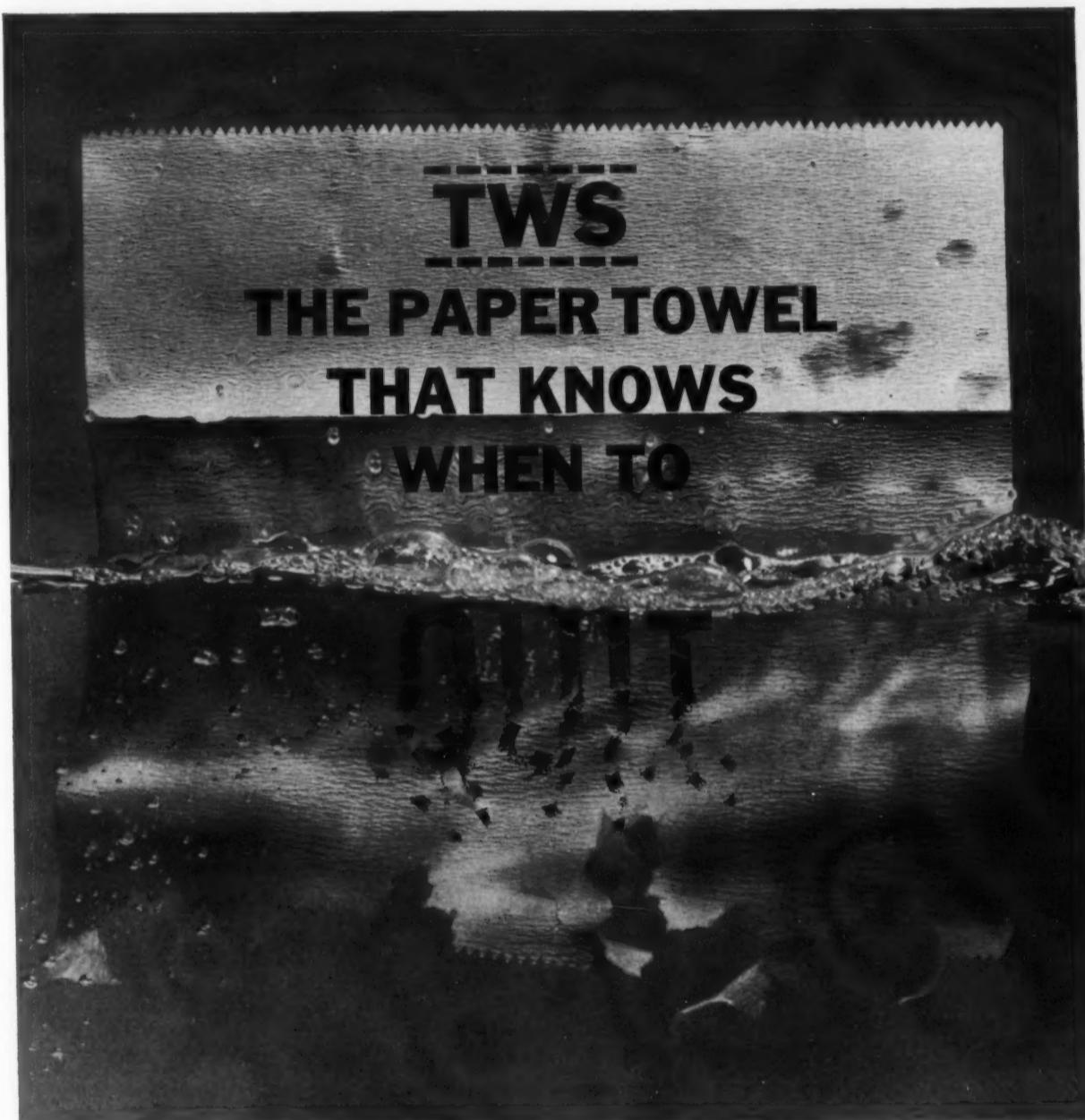


NEW USE FOR STAINLESS: U. S. Steel officials make inspection before releasing stainless covered-hopper car for Southern Pacific trial runs.

Stainless Hopper Car Gets Trial Run on SP

Pittsburgh—U. S. Steel has developed a stainless steel covered-hopper car that it says eliminates costly protective linings in other types of covered hopper cars used in the transportation of bulk materials.

The car is made of Tenelon, a new corrosion resistant stainless steel. It weighs only 58,500 lb., compared with 70,000 lb. for a conventional steel-covered-hopper car of similar size. First road tests of the new car will be conducted by Southern Pacific, it was reported.



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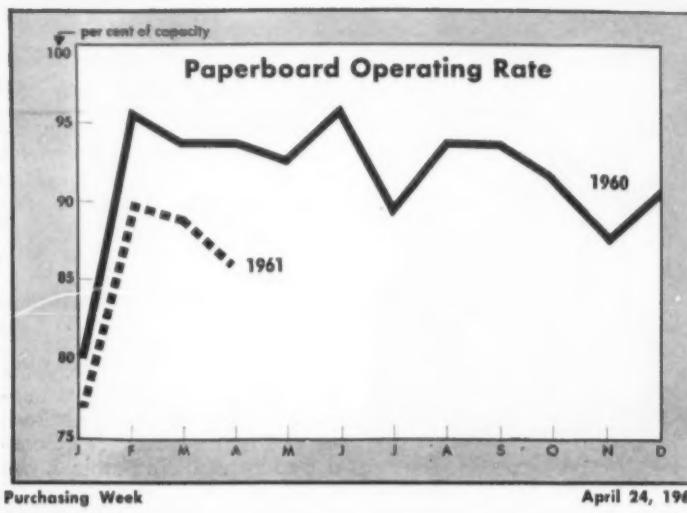
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Purchasing Week

April 24, 1961

Paperboard Product Prices Seen Holding Steady

New York—No general price rise is seen for paper and paperboard products in the near future—despite a healthy pickup in demand over recent weeks.

The reason: excess capacity. The paperboard operating rate, for example, is currently estimated at 86%—compared with 94% a year ago (see chart at left).

As one Midwest industry expert put it, "Volume will have to increase a great deal before official price boosts can be made to stick. About the only thing

we look for is a narrowing of discounts in some areas."

Here's how the outlook for the two major paperboard products shapes up:

- **Corrugated paper boxes.** Prices for this shipping container have been very weak. Tags were officially lowered some 8% in February, although price discounting had long preceded this move. Since then prices have drifted down further on the heels of a 3½% cut in corrugating medium initiated by International Paper a month ago. One

big corrugated container producer told PURCHASING WEEK that it was being pressed hard by large customers to pass this cost cut on to them.

However, a considerable surge in sales volume over recent weeks—plus the fact that prices are about "as low as they can go"—promises to keep corrugated prices level for the foreseeable future. Producers report no expectation of upward movement for prices until, perhaps, after the summer.

- **Folding paper cartons.** Demand has been somewhat stronger for this category—especially bleached board—than for corrugated with the result that recent prices have held up a little better. The industry is quite optimistic about continuing demand strength and looks for prices to firm further, but not to go up.

"Discounting should diminish—especially in the East where prices have been most unstable," commented one paper executive. "But new capacity coming in will keep prices level."

In fine papers, however, price prospects aren't bolstered by any noticeable pickup in sales volume.

"Demand has been spotty," observed one East Coast manufacturer, "and most firms are keeping prices stable while waiting to see what happens."

For other types of paper, industry opinion reveals the following prospects:

- **Multiwall paper bags:** Sales are picking up well; prices are firm and should remain so.

- **Gummed sealing tape:** Demand is fair, but not picking up; and prices look to continue very competitive.

- **Industrial and building paper:** Extremely keen price competition is expected in these markets, despite the fact that seasonal demand should soon give considerable lift to building paper sales.

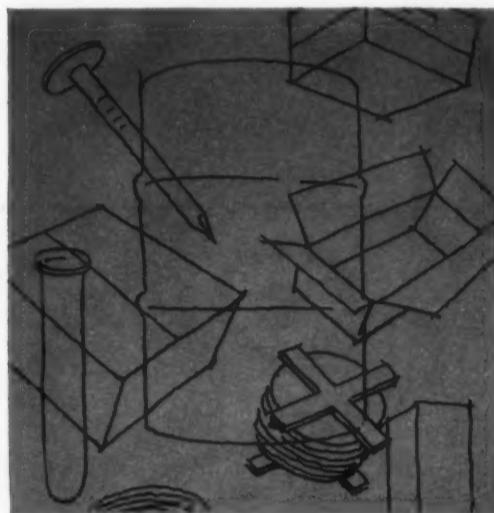
- **Paper grocery bags.** Here is the only instance where tags are scheduled to go up. Rises are slated for May 1, with a 7½% increase by Union Bag-Camp and a 10% increase by Crown Zellerbach.

The boost in grocery bag tags comes after a shaky first quarter marked by three 5% price cuts. One leading Eastern manufacturer explained the shift to rising prices in this way, "We pegged our prices too low. No one was making a profit, so we had to raise them. I think the higher prices will hold because there's a definite upturn in demand."

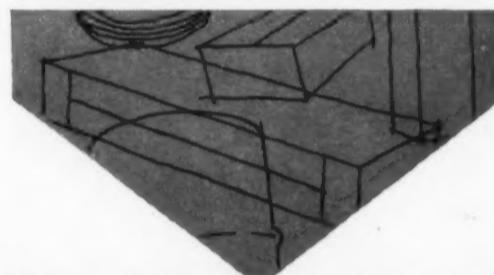
Reon Set to Produce Potentiometer for \$10

Yonkers, N. Y.—Reon Resistor Corp. said it will produce a semiprecision potentiometer for about \$10 with which it hopes to replace more expensive high-precision potentiometers in many industrial and military applications.

The new unit will be basically a composition-type potentiometer with a 1%-5% linearity. At present, users with accuracy requirements on the order of 1% must purchase high-precision potentiometers at a cost of from \$30 to \$100, said company President Leon Resnicow.



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Retail Sales Trend Leaves Economists Uneasy

New York—Most business economists are still uneasy about that trend in retail sales. While the decline of late 1960 seems to be bottomed out (see chart), they feel there is still no firm evidence that buying will rebound to the highs of a year ago.

Latest figures (March), for example—though up 1% over February—are still more than 4% below the highs hit last April. The sharpest drop took place in the bellwether hard goods sector, where sales for the month amounted to only \$5.5 billion. That's 13% below last April's \$6.3-billion peak.

How fast will these sales pick up? Most analysts would dearly love to know the answer, for retail outlays over the next few months could hold the key to these three basic questions:

(1) How fast a recovery? Retail sales are a key determinant because they make up the largest segment of spending in this country. Consumer outlays for goods last year, according to the Commerce Department, were twice that of all government outlays, almost three times as much as private investment spending.

In addition, an increase in retail sales could have a secondary effect. Higher production stemming from higher sales could provide the impetus for more capital spending by consumer goods manufacturers.

(2) Steady or higher raw material prices? These tags are especially sensitive to changes in consumer demand. Based on past experience, any increase in industrial buying by auto and appliance makers usually has a general firming effect on a wide range of material prices—particularly metals.

(3) Buying revolution or not? There have been signs of late that the public is shifting away from consumer hard goods and into service and/or savings.

In the second quarter 1960, for example, retail sales accounted for 63.1% of personal income after taxes. In the quarter just past, sales only took an estimated 60.5% of such income.

Consumer buying in the next few months should provide hints as to whether this was a temporary "recession effect"—or a basic long-run change in consumer buying habits.

Some economists, however, are trying to jump the gun in getting the answers to these pressing questions. They're scanning re-

cent surveys on consumer buying intentions for some inkling as to which way the consumer will move.

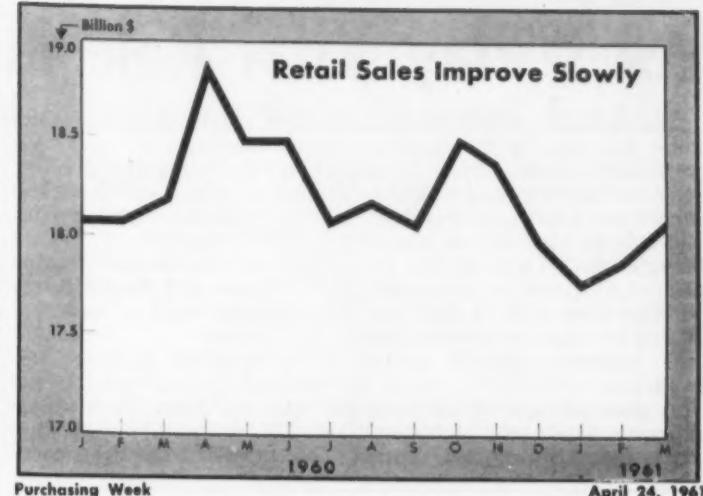
But the crystal ball is murky—with most surveys showing no definite buying trend either up or down.

Take the Michigan Survey of Consumer Finances released only a few weeks ago. On the one hand, it revealed that consumers were optimistic about recovery—thereby indicating a buying pickup sometime in the future.

But offsetting this "plus" fac-

tor were current intentions about buying specific products. Thus, consumers said they planned to buy less autos, appliances, and furniture in the next six months.

The Survey findings seem to jibe with the thinking of most informed sources—at least as far as cars are concerned. Thus, according to McGraw-Hill's Department of Economics, "The auto industry expects this year's sales to total about 5½-million new foreign and domestic autos—about 900,000 fewer than were sold in 1960."



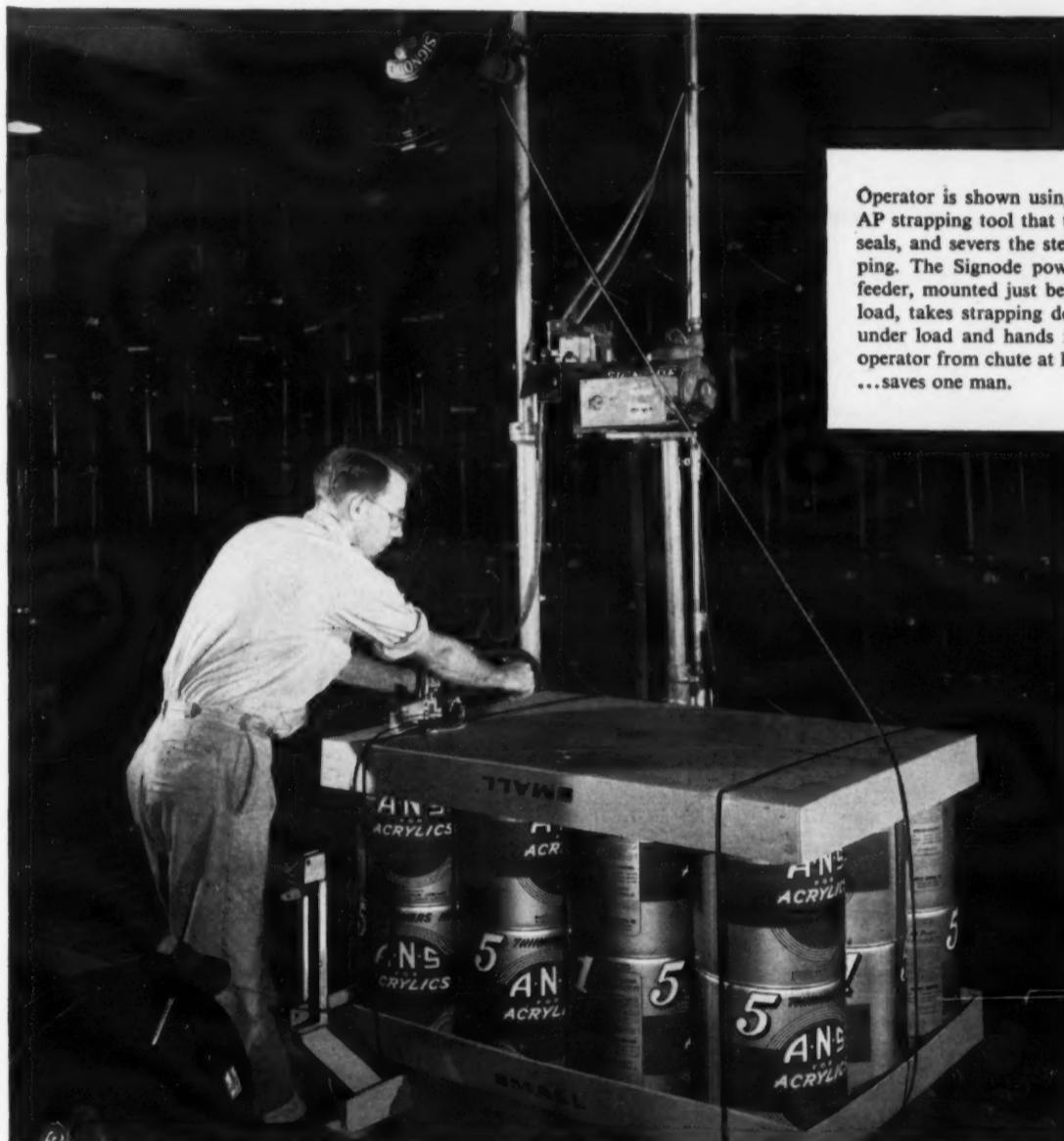
Signs of the Times

Hamilton, Ont. — Aluminum vs. steel, with a little home-town loyalty thrown in as a catalyst, fired up tempers in these parts.

In need of road signs, the city went ahead and ordered 250 aluminum ones on grounds that although they cost 75% more than steel, they would last twice as long.

The action stirred up a storm of protest from local steel producers, who called the decision "inappropriate."

Now the city has suspended all further purchases of street signs until officials find their own way out of their straits.



Operator is shown using Model AP strapping tool that tensions, seals, and severs the steel strapping. The Signode power strap feeder, mounted just behind the load, takes strapping down and under load and hands it to the operator from chute at his knees ...saves one man.

One Man Beats Empty Drum Flow

One length-wise strap and two straps around this unit load are applied by this one man in a few seconds—easily fast enough to keep up with the flow of empty drums.

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itself, put the length-wise strap in place, ready for tensioning, as the package moves along.

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P.A.'s Play Vital Role in Helping Bank Merger Go Smoothly

Los Angeles—Bank mergers, quite the rage in the financial community these days, create some harrowing buying problems for the purchasing men involved. Not only do bank buyers have to provide tons of new checks, deposit slips, forms, and envelopes, but they have to learn their way around an organization with over 100 branches created almost overnight.

A good example of the headaches connected with such mergers is the newly created United

California Bank, the nation's 16th largest with assets of almost \$2-billion. The merger involved the California Bank (70 branches) and First Western Bank & Trust Co. (115 branches). P.A.'s involved were Frederick Swanson of California and John Macrery and assistant Ernest Locher of First Western.

Final approval came Jan. 19, 1961, and the new bank planned to open its doors on Monday, Feb. 27.

To complicate this tight sched-

uling problem, each of the merged operations had to conduct banking activities on a business-as-usual basis through Friday, Feb. 24. The effective transition then, had to be made over a single weekend. In Southern California alone, 10-million checks, 9-million deposit slips and a myriad of other forms had to be in all branches, ready for use by Feb. 27.

But on the target date, 120 branches of the United California Bank began their day's business

with ease or so it appeared to the casual customer.

"We figured we'd worry about operational and organizational problems later," relates Swanson, who became purchasing agent for the Southern District of United California Bank. Locher was named purchasing agent for the Northern District with headquarters in San Francisco. Macrery continued as purchasing agent for a newly created splinter bank that bears the old First Western name.

A purchasing committee consisting of Swanson and Locher was appointed about a month prior to formal approval of the merger when it became apparent that the settlement of the long litigation was imminent.

The two-man purchasing committee began by establishing a priority list of those materials which would have to be available by opening day. The committee decided that the heavy volume items which had the greatest exposure to customers would get top priority. This included checks, deposit and withdrawal slips, letterheads, envelopes, statements, check protectors, business cards, certain machine dies, and customer endorsement rubber stamps. Materials that were strictly for internal use could be phased in once the merger became a reality.

Different Problems

There was a marked difference between the problems Swanson and Locher faced. The Southern District was comprised essentially of the 70 California Bank branches, with only 7 of the First Western branches added. In the Northern District were 43 of the 50 First Western branches. The two banking chains had used different machines, different methods, different materials.

From a practical standpoint, many of those items bearing the California Bank insignia could be used by United California Bank with little confusion. However, First Western supplies had to be replaced. Of the 700 types of forms bearing the First Western name, 350 had to be in the hands of all the Northern District branches by opening day. Swanson was able to get by with a far lesser number.

Expediency dictated that Swanson and Locher proceed independently in laying the groundwork. Each contacted his own established vendors, alerting them to the possible needs. In some cases, they had to seek additional sources where a single supplier lacked the facilities to handle the requirement alone.

"Most of the credit belongs to the suppliers," Swanson says. "It was their assistance and cooperation that got the job done. And, if we had problems, they certainly had their share."

Risky Ordering

No orders could be placed until there was formal approval of the merger. In some cases the bank was willing to take a calculated purchasing risk and order printing plates—but there could be no assurance to the printer that volume orders would follow. However, even this much make-ready was limited. At the time Swanson and Locher began making their calls to vendors, for example, approval of a new UCB insignia design had not yet been made. It wasn't until late December that bank officials settled on a design.

Meanwhile, branches throughout the system were asked by the purchasing department to clean house. All inventories that exceeded 90 days were sent to either the Northern District warehouse at San Leandro or to the Los Angeles warehouse. In all, some 1,250 different types of forms were returned to central stock.

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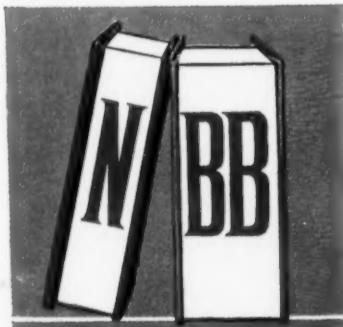


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New Ford President Is a 'Do-It-Yourself' Fan

Detroit—Vertical integration—which is tantamount to make rather than buy, as far as suppliers are concerned—is gaining more headway at Ford Motor Co.

Historically, Ford has always leaned toward self-manufacture: for example, it was—and still is—the only automaker to provide approximately 50% of its steel and glass requirements. And since World War II, Ford has added 24 new plants to its manufacturing complex.

Vertical Integration

John Dykstra, former vice president of manufacturing, who was recently appointed to the post of president, is a firm believer in vertical integration and do-it-yourself. "Make rather than buy whenever you can," he states flatly.

In line with this policy, Ford now makes many components that are usually bought on the outside, such as generators, horns, heaters, distributors, and shock absorbers. (A certain percentage of these components are still bought as a cushion against unforeseen difficulties, however.) And recently, the company decided to make its own automatic transmissions, previously manufactured for Ford by Borg-Warner.

Do-It-Yourself

The do-it-yourself philosophy of the new Ford president was dramatically underscored by the recent acquisition of what amounts to the Autolite trade name. Electric Autolite, second largest independent maker of spark plugs, batteries and automotive electrical equipment, sold to Ford all rights to spark plugs and batteries with the Autolite trademark, except for a relatively small output to the original equipment market. The deal also gives

UNIVAC Hits the Road With Mobile Computer

New York—UNIVAC Div. of Sperry Rand Corp. is touring the country with a mobile Solid-State 90 computer designed to give customers uninterrupted data processing service while they make the transition from punched card to magnetic tape systems.

The mobile system includes a central processor, reader, printer and read-punch unit, all contained in a 34' x 7' van. A company spokesman said jobs already had been lined up for the computer-on-wheels in various cities across the nation.

New York State Sets Up Purchasing Advisory Unit

Albany, N. Y.—A nine-man purchasing advisory council composed of representatives of various New York State departments has been established by Gen. Cortland Van Rensselaer Schuyler, state general services commissioner.

Schuyler said the council, in addition to advising him on standards and specifications, will evaluate purchasing policies, practices, and procedures from the point of view of agencies that are served.

Ford the right to hire Autolite's excellent sales staff and to a choice of its researchers. In addition, Ford got two modern plants—one in Owosso, Mich., which makes batteries and the other in Fostoria, Ohio, which makes spark plugs.

Electrical Components

Besides the \$28-million purchase price, Autolite received a "substantial" contract for automotive electrical components from Ford. Most likely, the bulk of this is for an Autolite de-

veloped alternator which Ford plans to use on 1962 models.

Electric Autolite, which will probably change its name to the Prestolite Corp., can continue to manufacture original equipment and replacement products but under a different trade-name. Moreover, Autolite now is reduced to one relatively small spark plug component manufacturing plant in Sarnia, Ont., and must build an assembly plant for plugs. It still has five battery manufacturing plants and all its facilities for other electrical gear.

New Data Services Give Rundown On Defense Procurement Awards

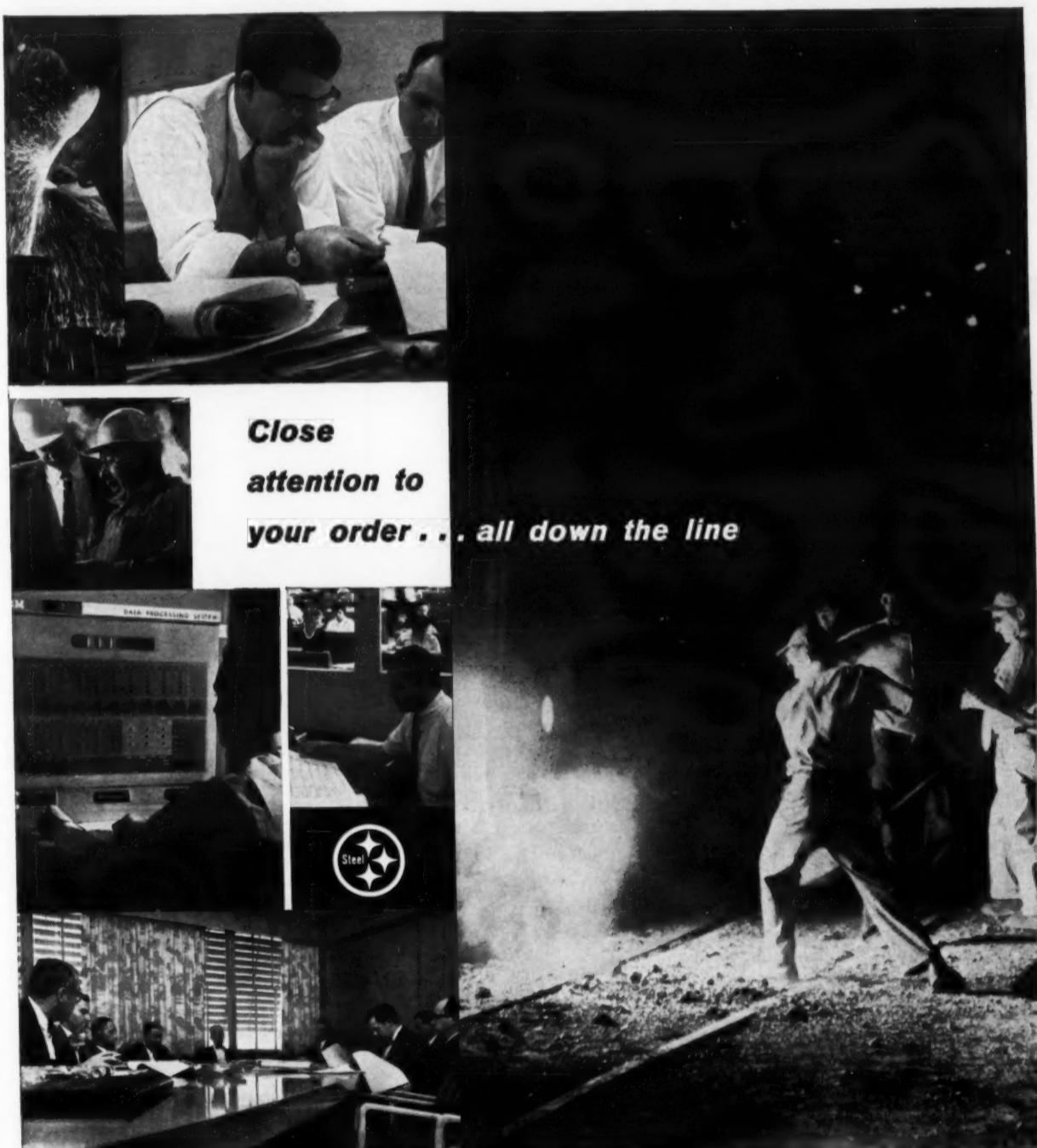
New York—Two new data services that will give a picture of defense procurement at a glance have been inaugurated by Frost & Sullivan, Inc.

The services are:

• **"Defense Market Measures."** A statistical and analytical quarterly review of the amounts awarded to each of 1,500 contractors, the government agency making the awards, and the product categories in which they were made. The service also will break

down awards by 150 different types of defense products, showing the total sums awarded in each area, the awarding agency, and the company receiving the award.

• **"The Defense Sales Director."** A bi-weekly service containing detailed information on contracts awarded by every government agency to all prime contractors and on those awarded by large prime contractors to subcontractors.



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Convair Small Business Policy May Set Style for Defense Firms

San Diego—Companies under pressure to parcel out more defense work to small firms can get some valuable pointers on subcontracting from a new program developed by Convair Div. of General Dynamics Corp.

The new Convair policy gives small firms a fair share of defense procurement dollars and, at the same time, insures that the company gets the most reliable, technically qualified suppliers. Here are the highlights of the new policy set up by Convair:

• One out of three bid invitations must go to small business.

• Where more than three firms are asked to bid, half must be small businesses.

• Special small business liaison men in purchasing evaluate potential small suppliers.

• Convair requires that major subcon-

tractors in turn use small business suppliers.

• Convair helps out small firms with paper work, finances, and management know-how.

The company, which builds the Atlas missile, the 880 and 990 jet liners, and the B-58 bomber, spent \$936-million with suppliers in 1960—a third of which went to businesses with less than 500 employees (the official SBA classification). In terms of numbers of suppliers, 75% of Convair's 16,200 vendors are in the "small business" category.

This contracting policy not only satisfies government critics, but gives Convair some first-rate help. According to S. E. G. Hillman, Convair director of procurement and material, one of the big advantages of dealing with small firms is that there's less red-tape in man-to-man contact with engineers and production managers responsible for the

Convair order. Besides, says Hillman, their overhead is lower—and that means prices are more competitive.

Sherman W. McBain, small business liaison officer at Convair Astronautics, makes light of the charge that too many small contractors are technically unqualified and financially shaky. Says McBain, "Small businesses are less complex and easier to deal with. They are not flexible in what they can make, but they more than compensate for this in other requirements."

Thorough Check

To guard against fly-by-night firms, business liaison specialists under purchasing thoroughly check engineering qualifications, quality of work, and financial strength of all firms before they are asked to bid. Having pre-qualified suppliers on tap eases objections from engineering divisions of Convair.

The biggest roadblock in working with

small firms is government paperwork. Hillman says many small firms do not have the necessary clerical staffs to handle paperwork required on military contracts, so Convair often helps their contractors with the red tape and the regulations involved.

Also it offers financial aid or advanced payments on a contract. Plan layout, production and quality control experts are available from Convair for consultation. Here is how Convair helped one firm:

The Fluidgenics Co., National City, Calif., with 65 employees, has built almost its entire business on producing fuel and liquid oxygen tank pressurization regulators for the Atlas missile.

Earlier versions of these regulators from another source had given trouble. Fluidgenics engineers completed a research and development program which indicated their product might solve the problem.

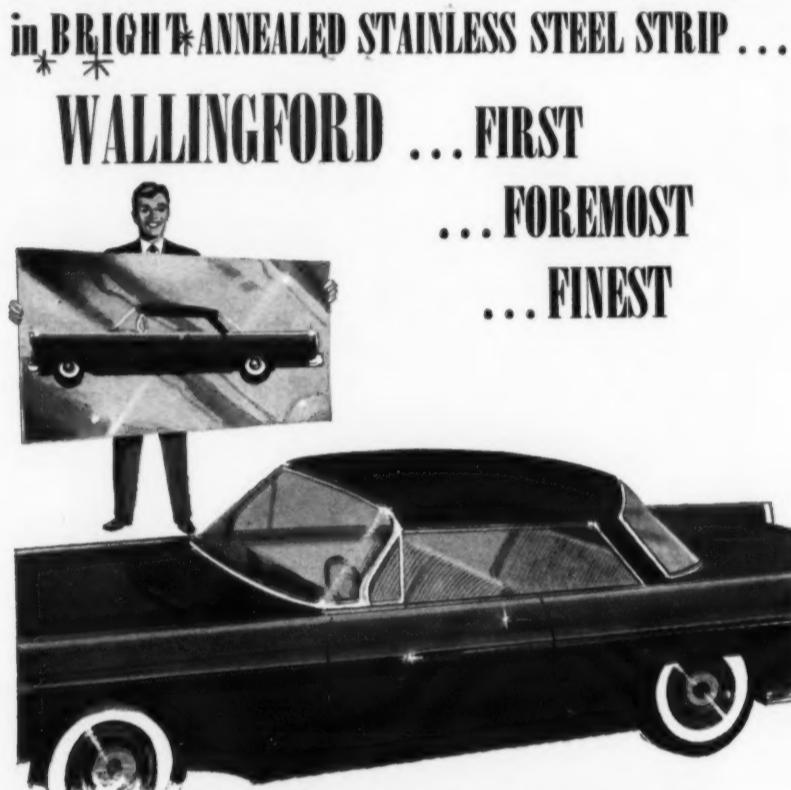
Qualification Program

Convair staged a qualification program. It was successful, and contracts that have totaled about \$2-million followed. In addition to work-in-progress payments, Convair detailed production and quality control men to help get the program started at Fluidgenics. Contract specialists tackled the mountains of paperwork.

Each Convair division—San Diego, Astronautics, Pomona, and Ft. Worth—has its own small business liaison officer working in purchasing. These men perform qualification surveys, and summarize their pre-findings in Microfilm files, which contain up-to-the-minute records of thousands of small businesses. These show the financial status, engineering know-how and past reputation of the companies.

At Convair-Astronautics, for example, there are about 1,200 vendor specification file films. When purchasing learns from operating departments the type of item needed, the small business liaison officers are contacted. A check of their files, based on past reputation and in-the-field investigations, shows what firms are qualified to bid.

Bids are invited by mail. One bid request in three goes to small business. If more than three firms are asked to bid, at least half must be small businesses, according to Convair policy.



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Keezer: How to Cast Your Troubles Away

(Continued from page 1)
impression that dry fly fishing for trout is the ultimate in its exactions of skill. So far as I have been able to discover, however, successful dry fly fishing requires a unique degree of concentration.

No Time for Worry

It is the element of concentration which, for me, gives dry fly fishing its preeminence as recreation, not only in the fishing line but among sports generally. During a round of golf there is an abundance of time between shots to worry about those things which were left undone before the game was started and must be done when it is over. Likewise, while fishing with bait, there is commonly lots of time for what in an earlier and simpler era may have been restful ruminations. Indeed, in extolling the virtues of angling in "The Compleat Angler," Isaak Walton stresses the opportunities it affords for contemplation and the inclination of anglers, mostly "men of mild and sweet and peaceable spirits" to "contemplation and quietness."

Under the harassments of your professional existence, however, sport which leaves room for "contemplation and quietness" also is more than likely to leave room for fretting. Dry fly fishing affords no such opening.

Complete Concentration

It requires complete concentration on the fascinating business at hand, and thus affords complete recreation and relief from the cares of the modern world. Let the mind wander for a fleeting fraction of a second, and that is sure to be the instant of the rise and a fish lost.

The trick is to tighten the line and strike precisely in that split second when the fish does. Perhaps one in 500 times a trout may hook itself on a dry fly. But about as often as that figure suggests the fisherman must strike when the fish does if there is to be fish hooked. The reason is that a dry fly will not present a plausible resemblance to the real thing while floating on the surface of the water if the line to which it is attached is taut and drags.

A Sport That Refreshes

There are other sports, of course, which impose comparable requirements of attentiveness—tennis preeminently among those I have tried. But, so far as I know, they are uniformly sports which carry a high rate of physical exhaustion. In contrast to them, a moderately vigorous person can keep at dry fly fishing on a stream for all of a long May day and wind up not only physically intact, but enormously refreshed otherwise.

Not So Many Fish, But . . .

Within the limits of my observation, the dry fly fisherman will not usually wind up with so many or such large trout as the bait fishermen. Between rains and cold and wind and all the other elements which handicap the fly fisherman much more than the bait fisherman, I am sure that through the season the bait fishermen come home with the heavier creels.

Also the crowding by fishermen which characterizes almost all trout streams these days places the fly fisherman at a marked disadvantage in relation to the bait fisherman. When the moderately skillful fly fisherman casts his flies, wet or dry, over a stretch of water and hooks no fish, he does not disturb those which may be in the neighborhood. But when the gear of a bait fisherman has been plopped into the stream and rattled and banged around, the trout, even if uninterested in the lures, are disturbed and made wary for hours by the clatter. Hence while the fly fisherman rarely spoils the fishing for the bait or spinner fisherman, the reverse is seldom the case.

Efforts to have trout streams or stretches of them reserved for the exclusive use of fly fisherman are sometimes pressed in such a toplofty manner as to suggest strongly that the primary purpose is to save that superior being, the fly fisherman, from contamination by association with bait fishermen. This naturally offends the bait fishermen, a much more numerous group than the fly fishermen, and thus assures effective opposition to the broadening of the fly fisherman's preserves.

Superior Relief

The reason why these preserves should be broadened is not that there is anything technically, normally, or aesthetically

superior about fly fishing. It is that this type of fishing provides a singularly superior type of relief and recreation for victims of modern metropolitan civilization. And the therapy is, of course, improved if there is at least a chance of raising a fish on a fly.

Approaching With Humility

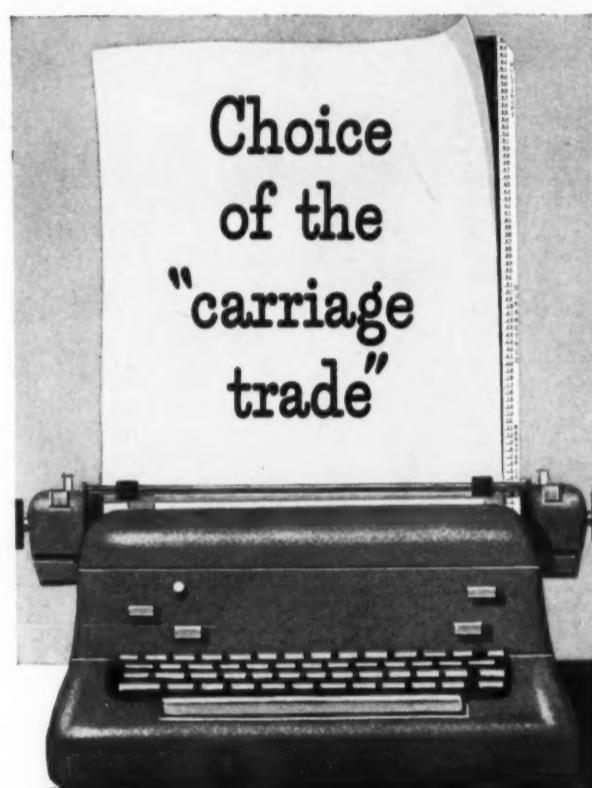
Thus presented with humility, as an essentially humanitarian undertaking, the effort to give the fly fisherman a break by enlarging the waters available to him exclusively (now only a tiny fraction of one per cent of the total) might be more successful. That, it hardly need be added, would mean advance for the nobler arts and sciences, and for mankind itself.

High Reliability Standard Seen for New Resistor

Philadelphia — International Resistance Co. said it has gone into full production of a fixed metal film resistor that may set a standard of reliability for the entire electronics industry.

The resistors have a reliability objective of .0004%/1,000 hr.—equivalent to one failure in 250-million unit hours of operation. An IRC spokesman said the standard will be supported by tests of 4,000 hours each on 65,000 units, a total of 260-million unit test hours.

The company said each unit delivered will be accompanied by a personal history. Complete records on all raw materials and process characteristics will be maintained and individual IBM cards will be available.



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Profitable Reading for P.A.'s

New Books

Organized Executive Action, by Henry H. Albers, published by John Wiley & Sons, Inc., 440 Park Ave. South, N.Y. 16, N.Y. Price, \$8.50.

Designed for business executives and students of management, this book essays a truly "inter-disciplinary" approach to the problems of executive action. The author explains how the functional areas of management relate to the planning process, and discusses at length the social

foundations of authority, leadership succession in a democratic society, as well as the relationship between property and power, and the question of managerial responsibility. Problems of the future, such as the role of electronic computers decision-making, also are considered.

Successful Managerial Control by Ratio-Analysis, by Spencer A. Tucker, published by McGraw-Hill Book Co., 330 West 42nd St., New York 36, N.Y. Price, \$11.

Ratio-analysis is a system of

control that enables a manager to cope with the vast complex of facts, events, and changes generated daily in all areas of business activity. This book explains how the system works to reduce company data and statistics to manageable proportions, and how it interrelates the resulting mathematical ratios to provide managers with the necessary tools for decision making, remedial action, and long-range planning.

Survival and growth, the au-

thor points out, demand quick action during the facts, not after and managerial control makes this possible by maintaining a continuous reading of the pulse of any business operation. Translated into graphs and curves, these values can be easily read, and acted upon objectively, freeing managers for work in more vital and productive areas.

Production, Forecasting, Planning, and Control, by E. H. MacNeice. Published by John Wiley & Sons, Inc., 440 Park Ave. S., New York 16, N.Y. 402 pages. Price: \$9.75.

Intended primarily as a textbook, this book (now in its third edition) can be read with profit

by executives who want to bring their knowledge of production forecasting, planning, and control up to date. The principles and functions of production management are slanted to the engineer's viewpoint but, at the same time, are related to other company functions, such as quality control, accounting, automation, and electronic data control.

The revised text includes new chapters on sales forecasting, warehouse distribution, and control, as well as timely material on economic lot sizes, EDP, and military production planning and control. Each chapter in the book is followed by a concise summary of the data presented and by discussion cases designed for group analysis of real business problems. The author is a technical consultant at the Permacel Div. of Johnson & Johnson.

From the Manufacturers

Self-Locking Nuts

Gives information on company's line of lightweight, all-metal, self-locking nuts. Features new line of high-strength, thin-wall inserts. Sales Dept., Kaylock Div., Kaynar Mfg. Co., Inc., Box 2001, Terminal Annex, Los Angeles 54, Calif.

Mercury Lamps

Gives data on initial and maintained lumen output, life ratings, and electrical and physical characteristics of Westinghouse mercury lamps. Also gives ASA designations, and application information. Booklet A-7264 (28 pages). Westinghouse Lamp Div., Westinghouse Electric Corp., MacArthur Ave., Bloomfield, N.J.

Plastic Materials

Table gives physical, electrical, chemical, and optical properties of nine thermoplastic materials—acrylics, acetate, butyrate, Teflon and Kel-F fluorocarbons, nylon, polyethylene, and vinyls. Cadillac Plastic & Chemical Co., 15111 Second Ave., Detroit 3, Mich.

Wire Baskets

Describes woven wire baskets for degreasing, dipping, heat treating, plating, ultrasonic or chemical cleaning, totting, etc. Includes illustrations and wire specifications. Bulletin B-10 (8 pages). Newark Wire Cloth Co., 351 Verona Ave., Newark 4, N.J.

Humidity Indicator

Humidity-indicating card helps users of flexible packaging materials maintain proper conditions in their storage areas. Chemically treated indicator spots show "caution," "safe storage," and "dangerous" storage conditions. Flexible Packaging Div., Continental Can Co., Mount Vernon, Ohio.

Mining Tools

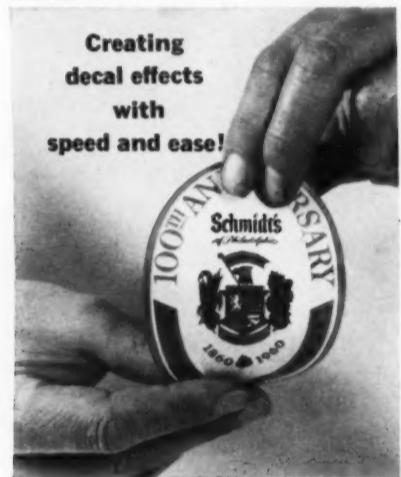
Details 28 styles of carbide mining bits, including chisel nose bits, coal drill and roof drill bits, cylindrical insert bits, etc. Features section on mining tool identification (20 pages). Carmet Div., Allegheny Ludlum Steel Corp., Wanda & Jarvis St., Detroit 20, Mich.

More effective labeling and tagging!

Time was when most labels and tags were considered routine printing jobs. Those days are gone forever . . . The growth of self-service consumer buying has made top management realize the importance of tags and labels as selling tools at the point-of-sale . . . and increased the responsibility of the men who buy them.

Today, tag and label buyers look beyond first cost to the job to be done. They look for tagging and labeling techniques that increase point-of-sale effectiveness, meet difficult specifications or reduce over-all costs.

Naturally, many of these value-minded buyers look first to Dennison . . . originator of more new labeling and tagging techniques than any other single source. A few examples of problem-solving teamwork between buyers and Dennison are briefly reviewed here.



Beer and safety razor blades have little in common. Yet, both have profited from a labeling technique that speeds and simplifies decoration.

Schmidt's of Philadelphia celebrated its 100th anniversary as a brewer in 1960 . . . with a Dennison split-top pressure-sensitive label playing a major role. Printed in three colors on transparent acetate and gummed with permanent Dennison PRES-a-ply® adhesive, it simulated a decal in appearance and clinging power. But, how different in application ease. No soaking in water. No sliding into position. Just a zip of its paper backing . . . a pat of the fingers . . . and there it was on an automobile or truck window. All of Schmidt's employees and distributors participated.

Gillette used the same labeling technique to redecorate thousands of counter cases when the Super Blue Blade hit the market with history-making impact in 1960. This Dennison PRES-a-ply label was printed in red, white and blue on transparent acetate to match the "price" spots already silk-screened on the glass cover of Gillette's full-line display case. Neatly and securely applied in seconds by finger-tip pressure, it saved time and bother for Gillette salesmen as they made their pre-promotion rounds.

Other users of this PRES-a-ply labeling technique find it the quickest, easiest way to add new prices, premium offers and

other promotional or variable information to existing packages or displays. High-speed Dennison PRES-a-ply label dispensers keep application costs amazingly low.

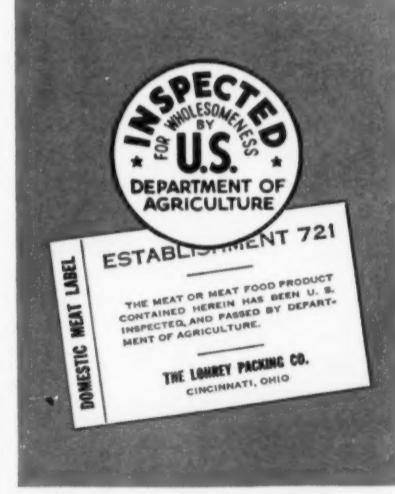
Giving "Easy on" labels extra "Stay on" power!

Few users of labels must meet such demanding specifications as meat processors. For, the US Department of Agriculture, a strict task master, insists on meat products being permanently labeled according to its regulations for consumer protection.

Cryovac film packaging of poultry, for example, calls for the application of a USDA inspection label after the film has been shrunk tightly around the bird in boiling water. The labeled package is then subjected to hours in a deep freeze. Yet, the label must remain 100% tamper-proof. For a Tennessee processor, Dennison supplied a pressure-sensitive label with such permanent adhesion that it cannot be removed without detection. To the customer's delight, the USDA inspector gave his complete approval not only for use on Cryovac film but also on waxed paper overwraps and waxed board boxes.

This same Dennison PRES-a-ply labeling technique is also bringing The Lohrey Packing Co. of Cincinnati and other federally inspected meat packers the benefits of strong adhesion. USDA regulations specify the labeling of stainless steel trucks and containers for meat and meat products. Each time a truck or container is emptied, it must be thoroughly steam-cleaned before re-use. Previous labels washed off after each use and often clogged drains, causing costly plumbing bills.

Dennison solved the problem by supplying PRES-a-ply labels with an adhesive so strong that even steam cleaning could not take it off! Printed on water-proof stock with grease-proof ink and over-varnished, these labels survive 40 washings! The Lohrey Packing Co. no longer has to worry about continually reordering and applying labels to their containers. A big headache has been removed.



If you need labels that will stay on through steam cleaning, freezing or any other harsh environment — you need permanent PRES-a-ply.

New stringless technique slashes tagging costs!



A stripe of self-sticking adhesive on the back of the tag is now replacing the traditional string or wire in many cases.

This new tagging technique not only reduces attaching costs but also brings the benefits of tagging to products formerly considered impossible, impractical or difficult to tag.

With the self-sticking stripe on one end, as on the back of the Georgetown Steel & Wire Co. tag, you have a new wrap-around technique. It is now increasing the point-of-purchase appeal of such widely varied products as tools, home appliances, luggage and furniture. Other users apply these tags directly to doors, windows, lumber, trunks, tires, windshields and toys.

In-plant applications of this new technique employ couponed system tags for production, piece-work and inventory control.

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Industry News in Brief

N-CC to Buy

Chicago — Nuclear-Chicago Corp., a producer of instruments for detecting radioactivity, will acquire Texas Nuclear Corp., Austin, Tex. Texas Nuclear, which will become a wholly owned subsidiary of Chicago-Nuclear, manufactures neutron generators in addition to performing research and development work for private industry and the government.

Altamil Expands

Indianapolis, Ind. — Altamil Corp. has branched out into the general industrial market by acquiring the wire bound box and crate assets of Indianapolis Wire Bound Box Co. Up to now, Altamil, a manufacturer of components for aircraft and missiles, has engaged mainly in defense work. The transaction did not include IWBB's Security Enterprises Div., Clay Wood Products Div., or Scottie Craft Boat Manufacturing Div.

Shamrock to Build

Amarillo, Tex. — Shamrock Oil & Gas Corp. said it will build an ammonia plant with a capacity of about 150 tons/day at its McKee refinery near Dumas, Tex. The new facility is expected to go into operation early next year.

Name Changed

Cleveland — National Malleable & Steel Castings Co. here will change its name to National Steel Castings Co. on July 1.

North American Buys

Cleveland — North American Refractories Co. here has acquired Ironton Fire Brick Co., Ironton, Ohio, a manufacturer of mortars, cements, plastics, firebrick, and other refractory products.

Tube Warehouse Open

Tulsa — Revere Copper and Brass will establish a regional tube warehouse in Tulsa to serve the area's expanding heat exchanger industry.

The firm has taken 3,000 sq. ft. of storage space in the Grant Supply Co. warehouse and named Charles Grant a general products distributor.

The Tulsa warehouse will supply all of Oklahoma, eastern Arkansas, and Houston. About \$100,000 worth of tubing will be warehoused here initially.

Latex Shipped in Tanks

New York — U.S. Rubber's Naugatuck Chemical Div. has begun shipping latex in 53-ft. tank cars capable of holding 20,000 gal., or twice the amount of standard tank cars.

The synthetic latex, used for such industrial jobs as impregnating paper, molding rubber products, and backing carpets, will be hauled from producing plants in Baton Rouge, La., and Naugatuck, Conn., to compounding plants in Gastonia, N.C., and Los Angeles, and to a re-shipment warehouse in Chattanooga, Tenn.

Portable Tool Signed

Detroit — Remington Arms Co., a subsidiary of DuPont Co., has appointed Portable Tool & Engineering Co. here as a distributor for products made by its Air Tools Div.

New Paperboard Mill

Springhill, La. — Lily-Tulip Cup Corp. and International Paper Co. have formed a joint subsidiary here, Red River Paper Mill, Inc. The new company will

erect a plant with a capacity for producing 250 tons of bleached paperboard daily in the form of cups, milk and food containers and other paperboard products.

Republic Foil Expanding

Danbury, Conn. — Republic Foil, Inc., plans to diversify its product line and at the same time gain an entrance to consumer markets through the acquisition of Consolidated Bag & Foil Corp., Somerville, Mass. Consolidated, a leading manu-

facturer of foil-insulated ice cream bags, also produces paper bags as well as laminated foil and paper for building insulation. Republic, which rolls aluminum foil for packaging and decorative uses, plans to operate Consolidated as a division.

Merger Planned

Los Angeles — Electronic Specialty Co. here plans to merge with D. S. Kennedy & Co., Cohasset, Mass., a manufacturer of microwave antennas used in tracking missiles and airplanes. Electronic Specialty, which will be the surviving firm, produces electronic devices and power supplies for missiles and airplanes.

MSL Buys Stevens Co.

Chicago — MSL Industries, a manufacturer of industrial fasteners, has acquired Stevens Co., New York, a national distributor of socket screw products.

Brunswick Plastic Division

Muskegon, Mich. — Brunswick Corp. has formed a new division here for making and marketing reinforced plastic products. The division will specialize in manufacturing corrosion-resistant products such as fume hoods, exhaust systems, storage tanks, and pressure vessels for the pharmaceutical, chemical, food processing, paper, and steel industries.



BRIDGEPORT E

SILENT TELLER: New device developed by Reflectone Electronics, Inc., Stamford, Conn., permits bank patrons to make deposits and obtain receipts automatically. Customer can deposit currency, coins, or checks, get receipt by pushing button. Device, called 'bankograph,' records transaction on microfilm. Bankograph will be marketed after completion of Reflectronics-Universal Match merger negotiations.



New Freight Billing Service Said to Cut Costs

San Francisco — Bank of America has put into operation a new Freight Payment Service, which it said will save shippers up to 50% of the cost of paying freight bills and at the same time reduce collection costs for carriers.

Advantages of the service for the shipper, according to bank President S. Clark Beise, include:

- Elimination of check writing.
- Elimination of legal problems in meeting due dates on freight bills.
- Simplification and improve-

ment of auditing procedures. • Possible large savings in accounts payable procedures.

The service will prove profitable for any firm sending or receiving more than 15 shipments of merchandise a month, said Beise.

Here is how the new plan works:

The bank acts as a clearing house. Shippers using the service authorize the bank to charge their checking accounts directly so that when a carrier member of the plan deposits a freight bill

drawn to the account of a shipper per member, the bank can subtract the proper amount immediately from the shipper's account and credit it to the carrier's account. The bank makes daily reports to the shippers, advising them of all charges made against their accounts for freight bills, and sends the bills to them.

If a shipper disputes a bill, he completes a form describing his objections. The shipper deposits this form together with the original bill exactly as if he were depositing a check. The bank credits his account for the amount in question and charges the account of the carrier for that sum. The carrier and the shipper then settle the dispute. If the shipper still owes the carrier money, the carrier deposits a new bill—or vice versa.

On freight bills made out to nonmember shippers, the bank will handle sorting and mailing, and also pick up remittances at lock boxes. The bank will try not to follow through on collections, however, and will not credit the carrier's account until the remittance from the nonmember shipper is received.

Interline settlements between carriers are provided for under the plan. A carrier who has money coming from another carrier-member deposits a bill drawn against him and receives immediate credit just as if the bill had been drawn against a shipper. Charges against non-member carriers can be made through the lock box plan.

IATA Slates New Talks On Atlantic Cargo Rates

Montreal — Members of the International Air Transport Assn. will begin a new round of meetings here May 1 aimed at reaching agreement on North Atlantic cargo rates.

Two previous meetings broke up without success because the airlines could not agree on a common rate. Most of the carriers want lower rates, but have been unable to agree on the size or manner or the reductions.

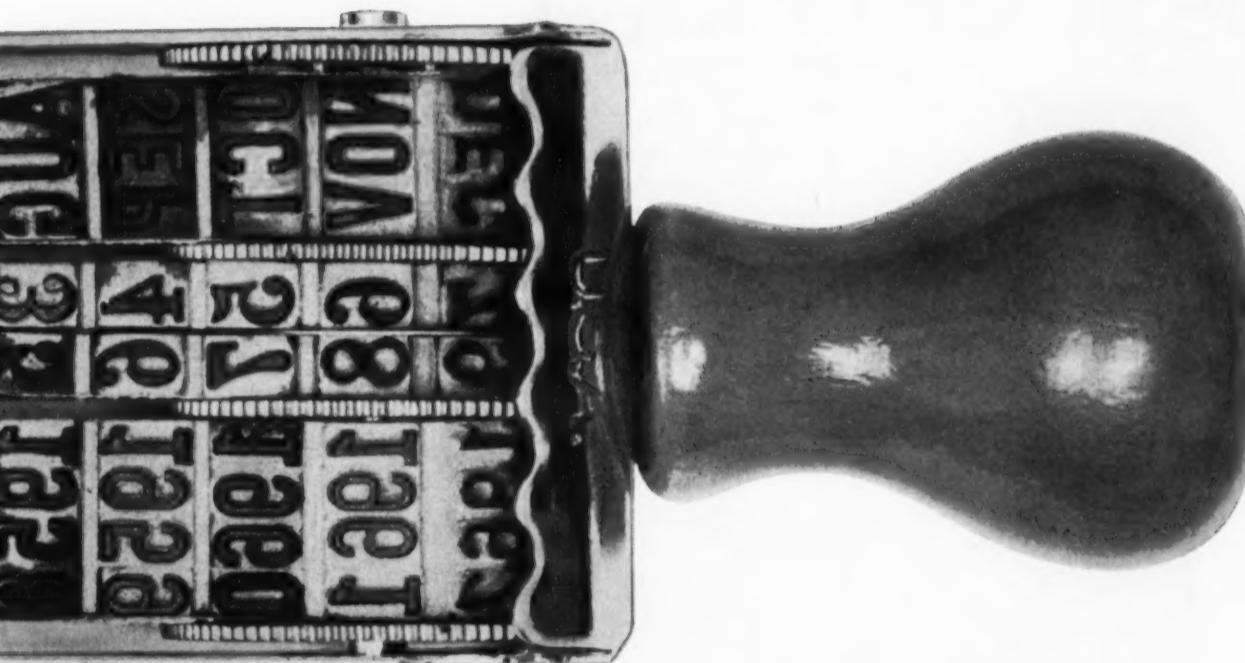
The three U. S. flag carriers flying the route will present a united front on a proposal calling for a rate system based on weight. The 15 foreign lines are divided between this type of system and one that covers specific commodities.

The current rate agreement expires June 30. If a new agreement isn't reached by then, "open" rates will develop, with each airline setting its own tariff.

Pullman Names Agent

Chicago — Matisa Equipment Corp. of Chicago Heights will act as sole agent for the sale of Pullman-Standard's line of railroad track maintenance machines in the U.S.

The Pullman-Standard power track machines will be added to Matisa's line of speed tampers, tie renewal machines, and rail-weld service. Pullman-Standard machines include tie spacers, power cribbers, ballast cleaners, rail handlers, and tool carriages. Pullman-Standard will continue to manufacture its own equipment at its Hammond, Ind., plant.



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PHILADELPHIA PERSPECTIVE



P/W CORRESPONDENT JOHN MOORE
Focuses a Purchasing Spotlight
On the Middle Atlantic Area

Materials handling equipment suppliers say some of their hottest prospects in the Philadelphia area are buyers for plants switching to automated processing. At the same time they have found that many plant planners and buyers are overlooking

the important need for such equipment until the very last minute.

The purchasing department for one of the largest chemical companies in this area made a special study of mobile equipment needs for newly automated plants. Its records show that for every 30,000 square feet of processing plant, an average of two materials handling vehicles are required. In warehouses, one such vehicle is required for every 15,000-to-20,000 sq. ft. of space. And in plants where automated machinery must be kept supplied, an average of one vehicle is required for every 10,000 sq. ft.

• • •

John Somers, president of Industrial Lift Truck Co. (one of Clark Equipment's biggest franchised dealers), says a misconception developed among some plant planners that automation meant virtual elimination of mobile materials handlers. Says Somers: "Somehow, they felt that the receiving department will move in raw materials by belt and hose or pipe, and these will flow through the plant without being touched by other equipment. They also assumed that finished products move out of the

shipping department in the same way." The result, says Somers, was "last minute crash ordering to get mobile equipment in time for the automated plant's opening."

In theory, automated plants need few if any wheeled materials handlers. But it just hasn't worked out that way. There always are numerous bags, cartons, and drums to move around the "completely automated" plant. Machine and process components, maintenance men, their tools, pipes and tubes and structural items necessary to keep the plant operating also must be handled.

• • •

Talk around local union circles has it that both the IUE (AFL-CIO) and the independent UE will step up union-shareholder harassment of top management in the electrical equipment industry over buying practices. Both unions reportedly will use mailing lists with names of stockholders of companies involved in the well-known Philadelphia antitrust trials. Union men doubt that they can topple top managements but they are "flexing their muscles" and showing their strength," according to two local union sources. IUE chief James Carey wants the companies to sue executives found guilty of price-fixing; top AFL-CIO officers want federal legislation barring convicted executives from ever holding another management job involving selling.

• • •

Shoptalk: A large corporation here has an "under the wraps" reorganization going on which will put Purchasing under the Marketing Department. Traffic also will come under Marketing. . . . There's a move afoot here to make all new buildings install radiant heat in their sidewalks for automatic snow removal. . . . Bell Telephone Company of Pennsylvania plans to let phone users place any number of long-distance calls of any duration for a fixed monthly fee. . . . The city has bought 112 Studebaker Larks; until now only compacts in the public fleet were Falcons.

• • •

The commuter problem may cause some industrial traffic problems in neighboring New Jersey. A Democratic-Republican bloc in the state legislature pushed through a bill saying that the New Jersey Public Utility Commission has the power to ban freight handling by any railroad that abandons or curtails passenger service.

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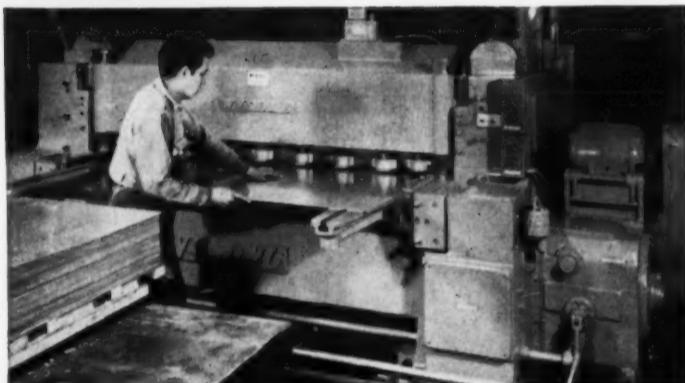
Mayor Richardson Dilworth of Philadelphia was a victim of his own economy drive last week. Recently, the mayor ordered city P.A.'s to practice austerity. Later, his office ordered a \$600 electric typewriter. "Every typist employed by the city seems to want an electric typewriter just because they're new and do the work easier," said Michael Sura, procurement commissioner. "If we have to be tough, we're going to be tough on everyone." Result, the mayor's staff still has the old typewriter. Sura said the only folks who will get electric typewriters are those who can show the machine will be used constantly to make 10 or 12 carbon copies.

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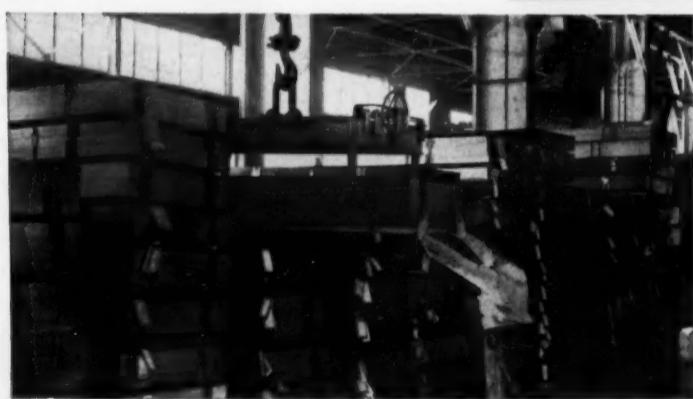
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Elgin Begins Marketing Abrasives Embodying Man-Made Diamonds

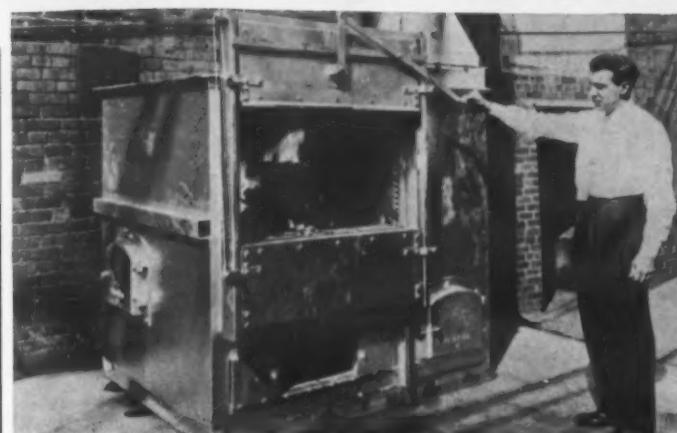
Elgin, Ill.—Elgin National Watch Co.'s Abrasives Div. is marketing for the first time abrasive compounds containing finely ground man-made diamonds. Previous compounds on the market used natural diamonds.

The new abrasive is expected to find usage in the fine polishing of hard metals and diamond wire drawing dies. Preliminary pricing is competitive with existing natural diamond based compounds. A jar of 10-carat compound sells for \$33.50 and one of 25-carat compound for \$75, in any degree of mesh.

The diamond powder is shipped to Elgin by General Electric's Metallurgical Products

Dept. in minus 325 mesh. It is then further ground by Elgin to grades ranging from 45 to 3 microns, and mixed with a petroleum-based vehicle of secret formulation.

Man-made diamonds were first introduced as a commercial product by GE's Metallurgical Products Dept. in 1957 for compounding by vitrified or resinoid bonds into grinding wheels. In mid-1960, a metallic bond was developed.



INCINERATORS FOR LEASE: New plan by Plibrico Co., Chicago, enables users to lease complete line of portable incinerators for disposal of any amount of waste from 75 lb./hr. up. Pictured above is 280 lb. unit.

New Chemical Process Permits Wash-and-Wear For All-Wool Sweaters

New York—A new process giving wool the same wash-and-wear qualities as synthetic fabrics has been applied for the first time to sweaters. It previously had been used in making blankets and socks.

The application to sweaters was made possible by a new chemical, Dynalize. Exclusive rights to Dynalize for men's sweaters for the fall, 1961 season has been obtained by Puritan Sportswear Corp. from Stevensons, U.S.A., which owns and licenses the chemical treatment process.

Puritan said the process adds about 4% to the cost of producing all-wool sweaters, but that it expects sales to be large enough to enable it to absorb this increase. Thus the new sweaters, with retail prices ranging from \$8.95 to \$15, will cost the same as untreated wool sweaters of similar construction and styling.

Lee Filter Branching Into Consumer Field

Edison, N. J.—Lee Filter Corp., which up to now has concentrated on manufacturing industrial filters, plans to branch out into the consumer field this year with the introduction of an air purifier.

The new unit will be designed to filter out all airborne bacteria, as well as smoke, odors, pollen, and minute dust particles. Lee expects to start producing the purifier in May.

Lee also revealed that it is working on antismog devices for automotive exhausts and a filter mask to block dust containing radioactive strontium 90.

Power Project Costs Cut

Portland, Ore.—Estimated cost of Portland General Electric Co.'s 300,000 kw. Round Butte project on the Deschutes River has fallen \$4,670,000 from a year ago. Officials attributed the reduction to "competitive bids received on such major items as turbines, generators and transformers, coupled with an actual price escalation to date that is considerably less than had been anticipated."

Fansteel Buys Tool Firm

Chicago—Fansteel Metallurgical Corp., a producer of refractory metals, will broaden its product line by purchasing Wesson Tool Co., Detroit, which manufactures tools for cutting those metals.

Included with Wesson Tool in the \$6.3-million acquisition are Wesson Multicut Corp., Wesson Metal Corp., its Archer & Smith Div., and Wesson Co., a subsidiary. In addition, Fansteel will acquire Wesson Cutting Tools, Ltd., a Canadian subsidiary.

Fansteel plans to consolidate the Wesson operations into a newly formed subsidiary, Wesson Corp.

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New Indicator Package Puts Safer Ingredients Into

The National Bureau of Economic Research (NBER), one of the nation's oldest research organizations, has finally come up with an answer to the nagging question of how to take the guesswork out of economic forecasting.

Its solution: an intricate statistical analysis (involving complicated interrelationships between 26 key business barometers) that has worked unfailingly over recent business cycles.

The fruit of over 40 years of study, the bureau's new analytical technique takes a giant step away from old fashioned crystal ball gazing and toward scientific business forecasting. One top analyst describes it as "the sharpest set of tools yet devised for looking into the economic future—and one that could eventually revolutionize industrial planning."

Champions of this new "indicator analysis" technique claim it can:

- Give advance warning of upturns and downturns.
- Measure the severity of recessions, the strength of booms.
- Signal when an up- or down-swing is running out of steam.

Once the basic technique is understood and charts are set up, forecasting the next turn in business is surprisingly easy. Thus, indicator analysis can be used by small as well as large firms. For the latter, however, there's plenty of opportunity for some really sophisticated computer-type analysis—the kind that can come up with specific sales forecasts.

The government is also watching these barometers very closely. Later this

year, the Bureau of the Census is expected to make a decision on whether or not to publish a periodic list of business indicators.

Such a list would be in addition to regular Census Bureau statistical reports. If adopted, it would be a real timesaver, for instead of piling through a dozen publications to get business barometer information, it would all be packaged in one handy source.

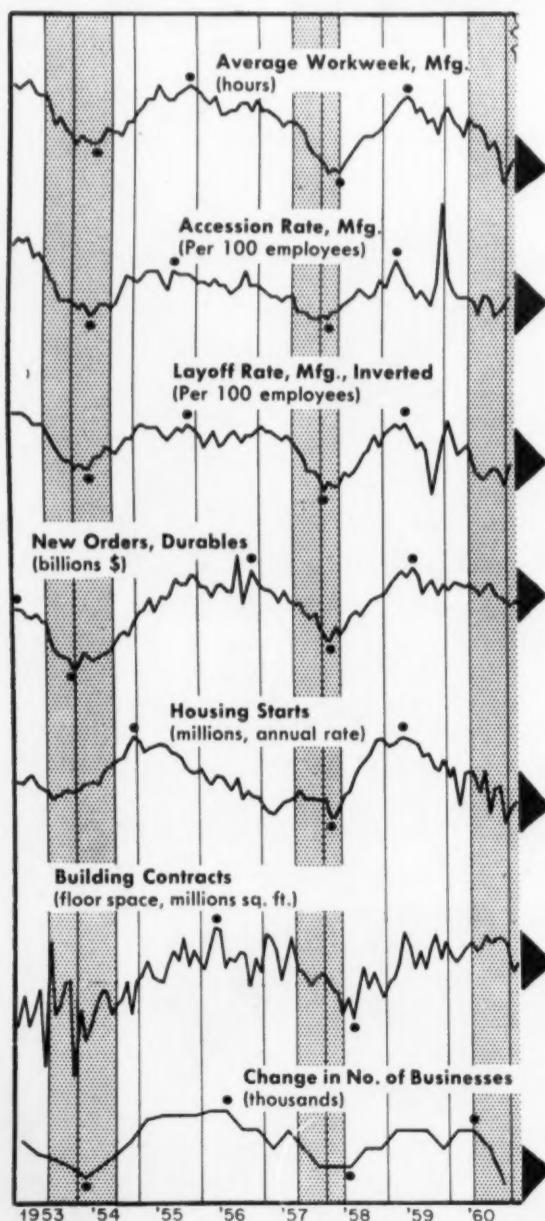
This government interest is just another hint of the increasing value being put on indicator analysis. As one economist put it, "If nothing else, the new technique helps shed light on the business cycle—particularly on how it has been changing over the past few decades."

He was referring to the fact that the new NBER statistics show a gradually changing cyclical pattern. For example, prior to 1937, the average length of a recession was about 18 months. Since then, there has been a marked narrowing down of the contraction period. Thus, the last three recessions have lasted only 14, 10, and 11 months respectively.

Similarly, there has been a pronounced tendency for recent expansions to last longer than those between World Wars I and II when they averaged out to about 22 months.

There is even some speculation on the part of economic analysts that the use of barometers as a business tool may have something to do with the general trend toward narrower recessions and wider recoveries. Their argument is that better knowledge prevents excesses and mistakes—thereby automatically putting a damper on cyclical fluctuations.

12 Indicators That Turn Ahead of the Economy



1. Total production worker man-hours paid per week divided by the corresponding number of production workers. (Source: Labor Dept.)

2. Additions to the work force divided by the total number of employees on the payroll. (Source: Labor Dept.)

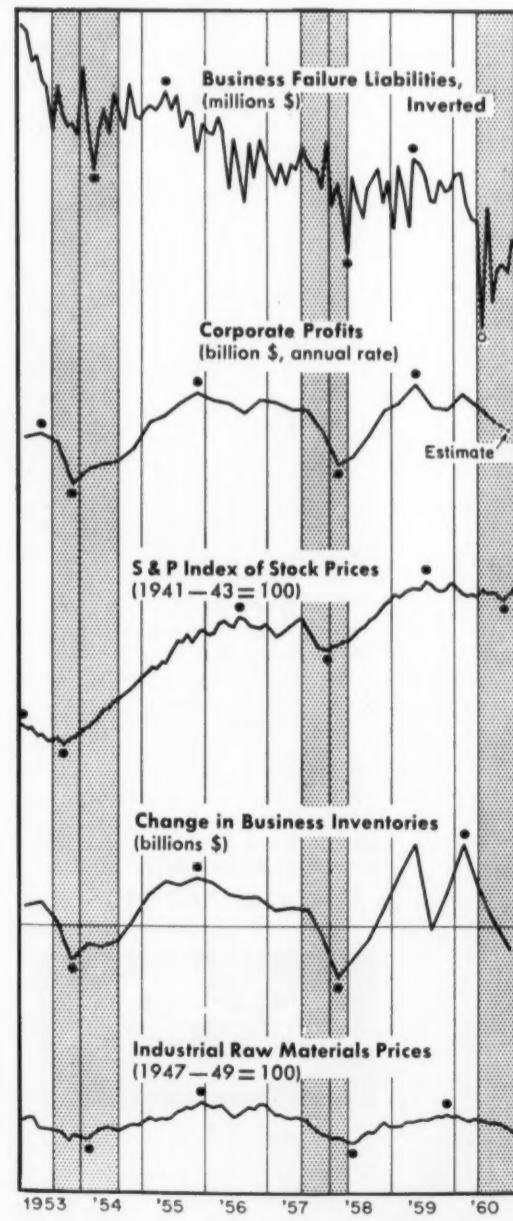
3. Unpaid job terminations divided by the total number of employees on the payroll. (Source: Labor Dept.)

4. Current dollar volume of net new business placed with hard goods manufacturers. (Source: Commerce Dept.)

5. Volume of privately owned new permanent non-farm units on which construction was started during the month. One-, two-, and multi-family structures are included. (Source: Commerce Dept.)

6. Commercial and industrial building contracts for work about to get underway. Includes banks, offices, stores, warehouses, garages, and all manufacturing buildings. (Source: F. W. Dodge Corp.)

7. The change in total population of nonfarm business concerns. Business transfers are excluded. (Source: Commerce Dept.)



8. Liabilities include all accounts on notes payable and all obligations known to be held by banks, officers, affiliated companies, supplying companies, or the government. Offsetting assets are not taken into consideration. (Source: Dun & Bradstreet.)

9. The volume of earnings net of corporate tax liability. Profits include depletion and exclude domestic dividends received and capital gains and losses. (Source: Commerce Dept.)

10. The weighted average price of 500 stocks—where each component stock is weighted by the number of shares outstanding. Figures are modified to offset arbitrary price changes. (Source: Standard & Poor)

11. The change in volume of inventories, valued at average prices of the period. Inventories comprise purchased materials, goods in process, and finished goods. All stocks owned by a firm are covered, including goods in transit and in warehouses. (Source: Commerce Dept.)

12. The 13 commodities currently included are: steel, copper, and lead scrap, zinc, tin, cotton, wool tops, print cloth, burlap, hides, rubber, rosins, and tallow. (Source: Labor Dept.)

Economic Forecasting

While the details of the NBER approach are complicated, its premise is a simple one. It revolves around the fact that industrial data generally fall into three basic business indicator categories: lead, coincident, and lag.

How It Works

Changes in these three groups over a period of time can give some amazingly accurate clues on the business cycle. For example, they called the shots on each of the last three recessions and subsequent recoveries (see charts below).

• Leading indicators (the first group) are so called because they precede any change in business activity. Thus, they signalled the recent downturn some three to six months before the recession actually set in. (The shaded areas in the charts represent recession.)

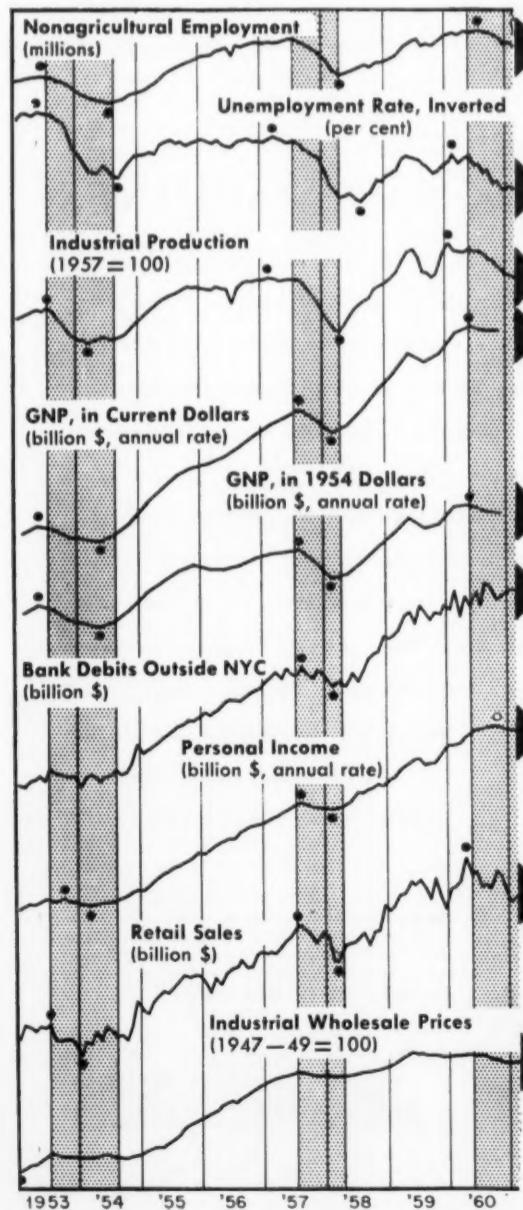
• Coincident indicators give the first real evidence that a change in the business climate has occurred. Thus, the fact that industrial production and employment took their first significant drops last August helped establish that month as the beginning of the 1960-1961 recession.

• Lag indicators are so named because they tend to follow business change, removing any remaining doubts about recession or recovery.

This latter group eliminates confusion about "mixed" business news. Thus, the fact that capital outlays are still heading down is not inconsistent with the general feeling that recovery isn't far off.

A hint that such an upturn may already be under way comes from the recent sharp change in the behavior of "lead" indicators. These charts

9 That Coincide With It



13. A payroll count of workers during a specified period. (Source: Labor Dept.)

14. Total reported unemployment divided by the total civilian labor force. (Source: Commerce Dept.)

15. Includes mining, manufacturing, and utilities. (Source: Federal Reserve)

16. The market value of the nation's output before deduction of depreciation charges, etc. (Source: Commerce Dept.)

17. The same as (16) except price changes are eliminated. (Source: Commerce Dept.)

18. The extent to which depositors are using their bank accounts. (Source: Federal Reserve)

19. The sum of wage and salary disbursements, rent, dividends, interest, and transfer payments. (Source: Commerce Dept.)

20. The aggregate dollar volume of sales to ultimate consumers based on reports of firms who sell at least 50% at retail. (Source: Commerce Dept.)

21. The average change in prices of nonagricultural commodities sold in primary markets. Where possible, price quotations represent the first commercial transaction for each commodity. (Source: Labor Dept.)

ABOUT THE AUTHOR

Geoffrey H. Moore, associate director of research, National Bureau of Economic Research, is the mastermind behind this new system of business cycle analysis.

Dr. Moore has been charting the ups and downs of the U.S. economy for over 20 years. In an earlier work (1950), he devised a business barometer kit of 21 indicators.

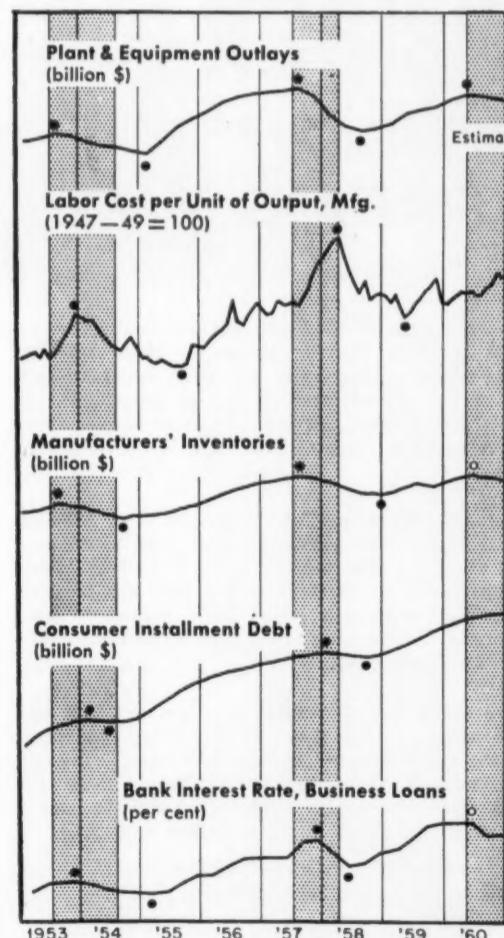
In this newest presentation, he has consolidated the work of a group of the country's leading economists — including such notables as Arthur F. Burns and Solomon Fabricant.



(lower left), for example, show that as late as last November, some 8 out of 12 of the "lead" barometers were pointing down. Three months later—February, 1961—every available indicator in this group was signalling recovery.

How strong the pickup will be, however, is another question. A study of past downturns indicates that the rate of subsequent expansion is usually low when the recovery follows a mild contraction. Since the 1960-1961 contraction was the shallowest in post-war history, it could mean that the recovery will be a long, drawn-out affair.

5 That Lag Behind



22. The dollar volume of expenditures on new plant, machinery, and equipment not chargeable to current account. Agriculture is excluded. (Source: Commerce Dept.)

23. Total wages and salaries in manufacturing divided by the index of manufacturing production. (Sources: Commerce Dept. and Federal Reserve)

24. The book value of stocks on hand — including purchased materials, goods in process, and finished goods. (Source: Commerce Dept.)

25. Credit outstanding at the end of the month on the books of financial institutions or retail dealers. (Source: Federal Reserve)

26. The weighted average of rates charged for short-term business loans in 19 leading cities. (Source: Federal Reserve)

The entire NBER indicator package is contained in its new two-volume 988-page publication, "Business Cycle Indicators." In addition to lucid explanations on the hows and whys of technique, it contains key data going back to 1920. Publisher: Princeton University Press. Price: \$15.

PERSONAL PERSPECTIVE

A Roundup of Timely Information Designed to Help You Make Better Informed Decisions in Your Private Life

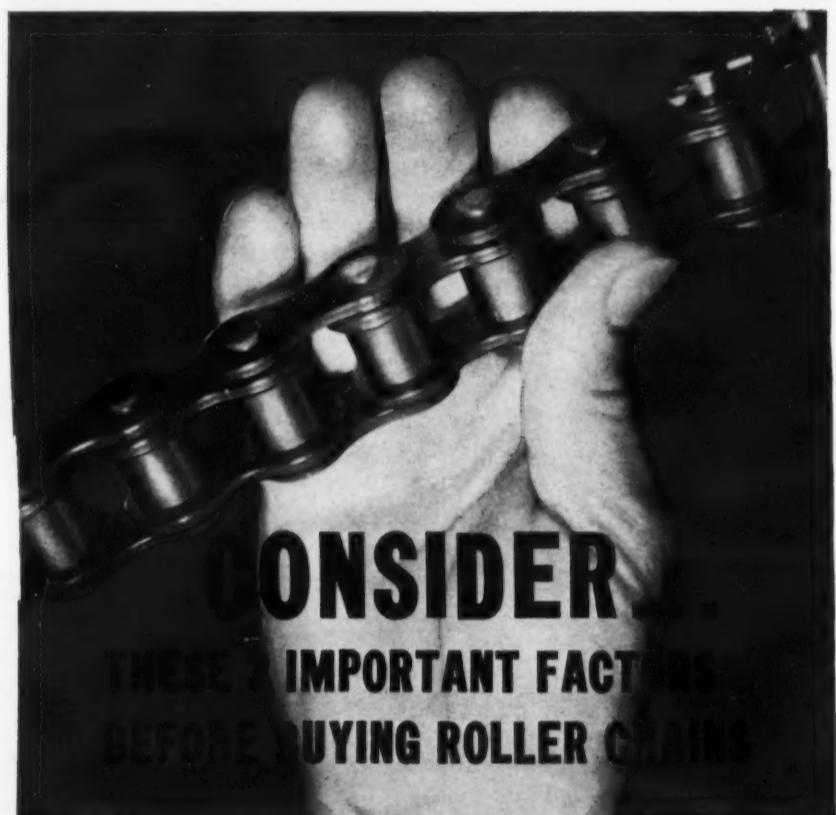
Note that more money is being spent these days on insurance premiums than on clothing, gasoline, or furniture.

In this safety-laden atmosphere, insurance people constantly have to cope with the following question: How much life insurance should the head of a family carry?

There's no pat answer, of course. Circumstances vary too much. But for those who like to start with broad clues, there are two:

1) Calculate any "cleanup" bills you may leave behind you; add your long-term debt; top this off with an estimate of your family's foreseeable needs. This will give you a rough idea of coverage. Or . . .

2) Buy four times your annual income.



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Acme has always produced, and will continue to produce products that incorporate the finest materials, and expert craftsmanship. All Acme chains are built to ASA standards assuring you of dependable, efficient performance. Acme Roller Chains are available in a complete range of sizes from $\frac{1}{4}$ " pitch to $2\frac{1}{2}$ " pitch.

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Acme Chains are available nationally through Industrial Distributors. Acme backs its Distributors with all the knowledge and assistance of its Engineering Department, in an advisory and technical capacity. The answer to your roller chain problem is never more than a phone call away. Call Acme Distributors for service anytime.

PRICE...

The initial cost of Acme Chains is comparable with the highest quality type of Roller Chain obtainable. Acme quality control program—second to none in the industry—gives each Acme Chain a longer life expectancy. Maintenance costs are less when you use Acme endurance tested Roller Chains.

For quality, price and service, be sure to ask for Acme Roller Chains available through your Industrial Distributor.



Write Dept. 36-E
for new ill. 100 page catalog with engineering section.

RELIABLE CHAIN DRIVES FOR ALL INDUSTRIES
ROLLER CHAINS, SPROCKETS, CONVEYOR CHAINS, FLEXIBLE COUPLINGS, ATTACHMENTS. (Special and Standard)



The life insurance packages and plans you can choose from have flowered like a bay tree in recent years. Current favorites include:

• **FAMILY PLANS:** These cover the entire family in a ratio of \$1,000 each for wife and children per \$5,000 on the husband. (When the youngsters reach 21, they're dropped—though coverage may be continued separately without a physical exam.)

• **INSURED INSURABILITY:** This plan enables you to add to your original insurance at a later date without subsequent physicals.

• **JUMPING JUVENILE:** Under this one, you can buy life insurance on children under 14 with an automatic fivefold hike in coverage at age 21. The premium meantime remains constant.

• • •
"Common disasters"—simultaneous death of husband and wife—seem to worry a lot of people (especially after major airplane and car crashes). The odds against such an occurrence are overwhelming, but for your peace of mind you can do these sensible things:

First, be sure your estate goes to your heirs through your wife—not through you. Although both of you may have perished at the same instant, it still is legally possible to pass on the estate as if your wife had outlived you. There's an inheritance tax break in doing it this way.

Next, be sure your children have a guardian.

Third, consider how fast you want your heirs to get your property. You may want to fix it so that they can't put their hands on too much cash at a time (especially insurance money, which is quick to come by).

• • •
If you plan to do any Civil War sightseeing, check travel accommodations well in advance. The rush promises to be spectacular.

Free literature and maps for the Centennial (which runs into 1965) are available from most major oil companies. Some even will give you travel hints and routes (as will the American Automobile Assn., if you are a member).

Actually, you can compress a lot of history into relatively small geographical segments. Thus the Washington, D.C.-Richmond, Va. sector swarms with milestones. So does the Tennessee country on down to Atlanta. A third unit is the Mississippi River area from Memphis south.

• • •
If you plan to go abroad, it's the same story—make sure of your accommodations well in advance (and don't forget your passport).

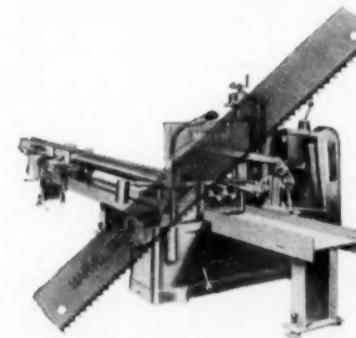
Meantime, bear this in mind about the growing vogue toward the purchase or hire of autos across the ocean:

U. S. auto insurance (including bail bond) usually doesn't extend to overseas nations. You can wind up in some hair-raising jams if you aren't aware of this. One solution is to get a special policy with a 73-day minimum from your insurance company, broker, or the American Foreign Insurance Assn. Also, if you intend to ship a car over the water, check on marine insurance.

• • •
A standard traveler's item—a pair of binoculars—is in big supply this year
(Continued on page 29)

a message to owners of MARVEL HACK SAW MACHINES

If you are the owner of a MARVEL Hack Saw Machine, check the name on the blades being used in it. If they are not MARVEL Blades, the chances are very good that you are not getting all the cutting-off speed, accuracy, and economy you paid for when you bought a MARVEL Saw. Consider this fact. The hack saw blade is the cutting tool that actually does the cutting job. If the machine is expected to deliver its full efficiency, the blade must possess a ruggedness comparable to that of the machine. Isn't it logical, then, that the blades you use be as carefully selected as the machine itself? Here is another fact: The MARVEL High-Speed-Edge Hack Saw Blade was designed specifically to withstand the heavy feed pressures and high cutting speeds your MARVEL Hack Saw can deliver. Only MARVEL UNBREAKABLE Hack Saw Blades can be safely tensioned taut enough to provide the maximum rigidity of the cutting tool necessary for accurate cutting-off; and at



the same time, protect both the operator from injury and the machine from damage that so frequently occurs with "breakable" blades.

Why not be certain your MARVEL saw is delivering the high performance you had originally purchased, by using the only blade capable of utilizing the power and accuracy built into the machine? MARVEL Hack Saw Machines and MARVEL High-Speed-Edge Blades are an unbeatable combination. MARVEL High-Speed-Edge Hack Saw Blades are stocked and sold by leading Industrial Distributors everywhere.

ARMSTRONG-BLUM MFG. CO.
5700 Bloomingdale Avenue • Chicago, Illinois

MARVEL
Metal Cutting
SAWS.

This Changing Purchasing Profession . . .

Roger H. Paine, buyer at Pennsalt Chemical Corp.'s Portland, Ore., office has been transferred to the firm's Tacoma, Wash., office as purchasing agent.

William S. Strout has been elected vice president, purchasing, at Oak Mfg. Co., Crystal Lake, Ill. He had served as director of purchasing since July, 1958.

Vincent W. Stehlin was promoted from assistant purchasing agent to purchasing agent by LeBlond Machine Tool Co., Cincinnati. He succeeds **William McKinley Reis**, who retired after 44 years' service with the company.



W. S. STROUT

V. W. STEHLIN

Arthur H. Swanson was appointed director of purchasing, Stauffer Chemical Co., New York. He succeeds the late Kenneth H. Allen. Swanson was formerly director of credit and insurance and before that served as purchasing agent for the firm.

Murray E. Davis has joined Massey-Ferguson, North Ameri-

Personal Perspective

(Continued from page 28) in a wide range of prices. A fairly good set of glasses may be found for as low as \$30, though the higher-priced jobs obviously have better, more reliable construction.

All binoculars have certain numbers and specifications which translate into plain English thus:

• **6x30, 7x35, 7x50, etc.**: The first number in any such pair indicates **magnifying power** (thus a "6" tells you that the instrument will enlarge an object six times in all dimensions). The second number—30, 35, 50, etc.—is the **diameter of the objective (front) lens**. As a rule of thumb, the bigger the objective lens, the better the light transmission of the glasses. (So-called "night glasses" are in the "50" class.)

CF or IF: This means "center-focusing" or "individual focusing." Center-focusing glasses are adjusted from a single control, plus an auxiliary control on one of the eyepieces. This is the most common and satisfactory type. Individual-focusing glasses have a separate control on each eyepiece, which means additional fiddling around (glasses of this type are slightly cheaper, though).

As a **layman's test of binoculars**, look through them at some clear object and watch for 1) **color rings** around the object, and 2) **fuzziness** of lines. Either indicates a poor set of lenses.

• • •
Happy Note: If you bought any E bonds between May, 1941, and May, 1949, you can hang onto them for another 10 years—at 3½% interest. In all, a bond that cost \$75 in 1941 will be worth \$195.04 a decade from now.

can Operations, Toronto, as general purchasing manager. He was previously assistant general manager of Vulcan Ford Smith, Hamilton, and general purchasing agent of Ford Motor Co. of Canada, Ltd.

George T. Hitz has been named purchasing agent of Anderson plant, Delco-Remy Div., General Motors Corp., Anderson, Ind. **C. B. Anderson** continues as purchasing agent for the division's four battery plants outside of Anderson.

S. E. Hilder has been named purchasing agent of Norwell-Wilder Supply Co., Beaumont, Tex. Hilder, who has been in the purchasing department the past 10 years, succeeds **Eric L. MacEwan**, who some months ago was made manager of inventory control.

G. D. Steele joined Bradley Semiconductor Corp., Hamden, Conn., as purchasing agent. He was formerly with Page, Steele & Flagg Co., North Haven, Conn.



DENVER ASSN. members toured Sealtest Dairy Products plant. Studying milk filling machine operation are (l-r) C. R. Wetzel, Burkhardt Steel; Clifford Arner and C. W. Manning both of Climax Molybdenum.



breaking point tests show
Allen screws are
consistently better

*PRODUCT QUALITY ASSURANCE

PQA is the symbol of unquestioned quality at Allen. It stands for constant quality control from rigid upgrading of incoming raw materials to final, *unconditionally guaranteed* shipment to you.

To give you some idea: Federal Spec. FF-S-86a calls for 4,950 lbs. for the $\frac{1}{4}$ -20 cap screw. Day-in, day-out breaking point tests of these screws prove that Allens are *consistently better . . . well above the minimum requirement!*

Quality checks like this one confirm PQA every step of the way through Allen's manufacturing process. And to help you keep costs down and profit margins up, Allen manufactures 1457 standard sizes.

Remember . . . it costs you no more to have *genuine* Allens right from stock, and they are only a minor fraction of your assembly costs.

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Genuine ALLEN products are available only through your ALLEN Distributor. He maintains complete stocks close by to help cut your freight costs, inventory, warehousing and handling. He offers fast, single-source service. He knows Allen products. And he makes Allen Engineering Service available to you any time. Call him!



Meetings You May Want to Attend

FIRST LISTING

JULY

Institute of Surplus Dealers—16th Trade Show, New York Trade Show Building, July 30-Aug. 2.

SEPTEMBER

Pacific Intermountain PA Conference—Hotel Westward Ho, Phoenix, Ariz., Sept. 29-30.

OCTOBER

NAPA, District 2—15th Annual Southwest Purchasing Conference, Statler Hilton Hotel, Dallas, Oct. 5-6.

Associations of the Western Building Industries Council—1st Annual Western Building Industries Exposition, Great Western Exhibit Center, Los Angeles, Oct. 7-10.

NAPA, District 7—18th Annual Purchasing

Conference, Atlanta Biltmore Hotel, Atlanta, Ga., Oct. 15-17.

NAPA, District 8—Purchasing Conference, Essex House Hotel, Newark, N. J., Oct. 25-27.

PREVIOUSLY LISTED

APRIL

1961 Powder Metallurgy Show—Metal Powder Industries Federation, Hotel Sheraton-Cleveland, Cleveland, April 24-26.

National Screw Machine Products Assn.—National Meeting—Somerset Hotel, Boston, April 29-May 3.

MAY

National Tank Truck Carriers—Annual Convention and Tank Truck Equipment Show, Netherland-Hilton Hotel, Cincinnati, May 1-3.

National Assn. of Educational Buyers—40th

Annual Convention, Chase Park Plaza Hotel, St. Louis, Mo., May 3-5.

National Office Management International Conference & Office Exposition—Kiel Auditorium, St. Louis, May 7-11.

American Foundrymen's Society—First National Castings Congress and Exposition, San Francisco, May 8-12.

Material Handling Institute—Eastern States Show, Trade & Convention Center, Philadelphia, May 9-11.

Edison Electric Institute Purchasing and Stores Committee—14th Annual meeting, Shamrock-Hilton Hotel, Houston, Texas, May 15-17.

Design Engineering Show—Cobo Hall, Detroit, May 22-25.

Tool Exposition and Engineering Conference—American Society of Tool and Manufacturing Engineers, Coliseum, New York, May 22-26.

American Iron and Steel Institute—Annual Meeting, Waldorf Astoria Hotel, New York City, May 24-25.

Electronic Industries Assn.—37th Annual Convention, Pick-Congress, Chicago, May 24-26.

National Society of Business Budgeting—Statler-Hilton Hotel, Dallas, May 25-26.

Canadian Association of Purchasing Agents—36th Annual Purchasing Conference and Products Display, Royal York Hotel, Toronto, May 28-31.

"We keep our inventory in the air

...by using Delta Air Freight"



Scripto (Atlanta), world's largest producer of writing instruments, keeps inventories to a working minimum by air lifting merchandise.

"A low inventory means more capital freed for productive work," reports Ramon Alvarez, Assistant Vice-Pres. and export manager. "That's why we use Delta Air Freight for fast, inexpensive shipments within the U.S.A., and to international airports for connection with overseas carriers. Air Freight helps us keep total distribution costs low."

Profit from Delta's BIG PLUS



Delta operates all-cargo flights and in addition carries freight on every passenger flight, including Jets. All-Cargo flights serve Atlanta • Chicago • Charlotte • Dallas • Houston • Memphis • Miami • New York • New Orleans • Orlando • Philadelphia.



GENERAL OFFICES: ATLANTA AIRPORT, ATLANTA, GA.

Straits Tin Report

100% tinplating of silicon diodes meets rigid military specifications for resistance to corrosive salt spray and provides optimum solderability of these hermetically sealed units, accord-

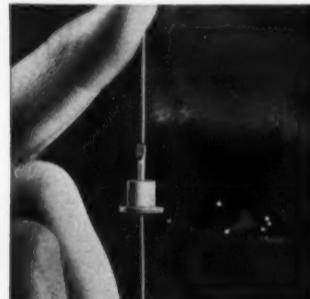
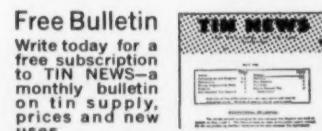


Photo courtesy International Rectifier
ing to one manufacturer. In addition, tinplating protects against adverse environmental conditions, including corrosion resulting from excessive humidity.

Another capacitor maker recommends consideration of hot-dip tinning, plus centrifugal spinning. This method provides a fine solderability base and increased corrosion resistance. It also affords longer shelf life in storage.

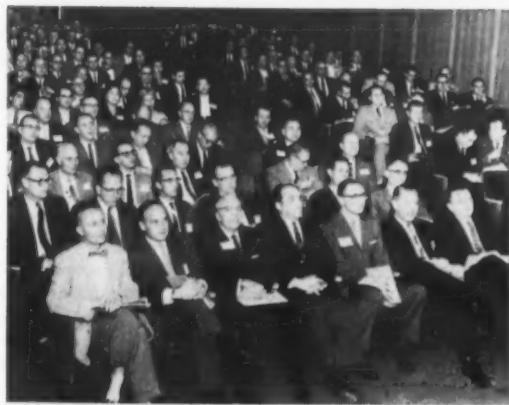
Solder clad miniature base tab stampings can speed transistor production. Each replaces two components used to make ohmic junctions to germanium or silicon transistor triodes. They consist of a layer of high purity solder alloys metallurgically bonded to a base tab conductor such as Kovar, nickel or nickel-iron. Solder and base ratio is 6:1.



The Malayan Tin Bureau
Dept. T-50D, 2000 K Street, N.W., Washington 6, D.C.

How you can
eliminate
costly
down time





FULL HOUSE reflected P.A. interest in Los Angeles P.A. Assn. workshop. Format included talk by speaker followed by discussion period while . . .



NORTHERN CALIFORNIA ASSN. seminar accented group discussion. P.A. enthusiasm resulted in 16 concurrent sessions with groups limited to 15 each.

Professional Development Sessions Prove Big Success on West Coast

Los Angeles—Two West Coast purchasing groups have hit shows on their hands.

Altogether, the professional development workshop of the Los Angeles Assn. and the seminar series of the Northern California Assn. drew a total of over 600 participants at each weekly session.

This year's Los Angeles workshop was aimed specifically at upgrading personal executive acumen and departed from the

usual format of briefings on purchasing methods and techniques.

Arthur G. Pearson, professional development chairman and procurement specialist for Lockheed Missile & Space Div., told the opening session group it "has been developed with the single purpose in mind—to make you a better innovator, a better manager of yourself." Among the areas covered during the February through April meetings were creative thinking, communications, time management, decision making, and planning and control.

Speakers included Dr. Robert Tannenbaum, professor of personnel management, UCLA; John B. Bennett, member president's staff, System Development Corp.; John M. Russon, Massachusetts Life Insurance Co.; Gunther W. Klaus, manager, sales forecasting, Purex Corp., Ltd.; Robert D. Gray, director, Industrial Relations Section, California Institute of Technology; Dr. Theodore A. Anderson, commissioner of economic development, State of California, and Paisley Boney, NAPA president.

Attendance at the two-hour weekly sessions was consistently in excess of 90%. Enrollment for this year's clinic was 365.

"The workshop," Pearson said, "tries to fill a genuine need for those people who have neither



REFERENCE LITERATURE was available at Los Angeles workshop. Lectures were taped, and the association plans to publish.

the time nor the inclination to take a full time college course.

A massive approach characterized the Northern California Assn. educational program, which was based on a series of six case study seminars.

The association scheduled 16 sessions to take place simultaneously on six Tuesday nights, February through April, covering a 125-mile long area from Monterey to Berkeley.

The course was designed to give all participants the opportunity to relate their own experiences to those featured in the cases selected. P.A.'s tackled such subjects as successful inter-departmental relationships; buyer-seller relationships; value analysis; inventory control; price policies; and sound purchasing ethics. Cases were selected from two purchasing textbooks.

A total of 263 signed up for the course, 247 as students and 16 as discussion leaders. Groups were limited to approximately 15 and the roll call often registered 100% attendance.

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EXbrook 3-8231

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East Coast Radio & Television Co.
Franklin 1-4636
Electronic Equipment Co., Inc.
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Orlando
Wholesale Radio Parts Co., Inc.
Garden 4-6579

West Palm Beach
Goddard Distributors, Inc.
Temple 3-5701

ILLINOIS
Chicago
Allied Radio Corporation
Haymarket 1-6800
Newark Electronics Corp.
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INDIANA
Indianapolis
Graham Electronics Supply Inc.
Milesoe 4-8486

LOUISIANA
New Orleans
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TW 7-0111

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Mulberry 5-2134

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Boston
Cramer Electronics, Inc.
Copley 7-4700
DeMambro Radio Supply Co., Inc.
AL 4-9000

Graybar Electric Co.
Hubbard 2-9320
Lafayette Radio Corp. of Mass.
Hubbard 2-7850

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Electrical Supply Corp.
University 4-6300

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Ferguson Electronics, Inc.
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Jackson
Ellington Radio, Inc.
FL 3-2769

MISSOURI
Kansas City
Burstein-Applebee Company
Baltimore 1-1155

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Graybar Electric Company
Jefferson 4-700

University City
Olive Industrial Electronics
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Capitol 5-3358

NEW JERSEY
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General Radio Supply Co., Inc.
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Federated Purchaser Inc.
AD 8-8200

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Stack Industrial Electronics, Inc.
RA 3-6326

Buffalo
Genesee Radio & Parts Co., Inc.
TR 3-9661
Weble Electronics Inc.
TL 4-3270

Elmira
Stack Industrial Electronics, Inc.
RE 3-6513

Ithaca
Stack Industrial Electronics, Inc.
ITHACA 2-3221

Mineola, Long Island
Arrow Electronics, Inc.
Pioneer 6-8686

New York City
H. L. Davis, Inc.
Empire 1-1100
Milo Electronics Corporation
Bekman 3-2980
Sun Radio & Electronics Co., Inc.
Oregon 5-8600

Termin-Hudson Electronics, Inc.
Chelsea 3-5200

OHIO
Cincinnati
United Radio Inc.
Cherry 1-6530

Cleveland
Main Line Cleveland, Inc.
Express 1-4944
Pioneer Electronic Supply Co.
Superior 1-9411

UTAH
Salt Lake City
Standard Supply Company
EL 5-2971

VIRGINIA
Norfolk
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Seattle
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AT 4-0200

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Everything You Need in Raytheon Industrial Control Tubes...now as handy as your telephone

Raytheon's complete line of rugged and reliable industrial control tubes is now available from local distributors in 60 cities. You get fast delivery of exact replacement thyatron, ignitron, amplifier, and rectifier tubes that meet and exceed specifications for all your industrial electronic control equipment—and at no price penalty!

Cut equipment down time. Eliminate the head-

aches of faulty tube replacements. Call your Raytheon distributor for off-the-shelf delivery of the most reliable industrial control tubes available.

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RAYTHEON COMPANY

DISTRIBUTOR PRODUCTS DIVISION

RAYTHEON

Magnesium Priming Big Promotional Drive to Curb Demand Drop

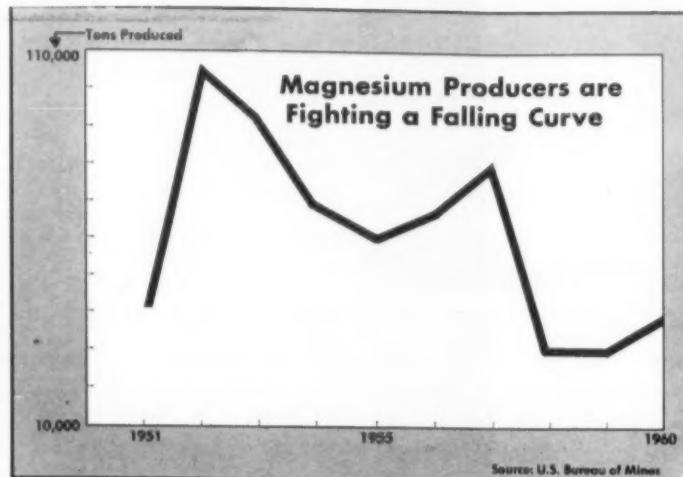
New York—Look for a big promotional push from magnesium producers in the near future. Members of the Magnesium Association have been meeting here to study ways of luring customers with technical and economic data. Chief aim: to place magnesium firmly alongside aluminum and steel as a basic structural metal.

Magnesium so far has failed to live up to the rosy predictions made for it by the 1952 Paley Commission raw-materials report, which termed magnesium "a strong candidate for widespread use." Although defense applications have indeed multiplied, particularly in the aerospace field (10% of the Navy's Talos missile's gross weight is magnesium) suppliers have only recently diverted substantial funds to commercial product development.

But despite some modest post-war gains, industry production in 1960 still averaged only 44% of the nation's rated 91,000-ton commercial capacity. And of this total, only about 40% went into structural applications, with the remainder going into alloying and combination materials in the electrochemical, chemical, and metallurgical fields.

The industry is anxious to reverse these percentages, because it's only by increasing the structural uses of the metal that it can hope to make substantial over-all gains in output.

Magnesium's chief asset is its light weight, but this important advantage is more than offset by widespread misconceptions as to its high cost per pound (vis à vis aluminum), flammability, and corrosiveness. Magnesium producers agree that the biggest problem facing the industry today is one of overcoming these prejudices. Says association Secretary Jerry Singleton, "Many older people in responsible positions remember from their serv-



MAGNESIUM PRODUCTION in U. S. fell off sharply when demand for ammunition ceased in 1952. It plunged from a level of 81,000 tons in '52 to a low of 30,000 when Dow closed its Velasco, Texas plant.

and sometimes costly safety precautions must be observed. Casting and extruding operations present fewer problems, however.

Magnesium spokesmen are quick to point out that base price is an inaccurate gage of over-all product cost. Even with the existing price gap, they say, the buyer's dollar will fetch more bulk magnesium than aluminum, due to the weight-per-unit-volume ratio (roughly two-thirds to one). At current price-per-lb. levels, one cubic foot of aluminum ingot costs \$43.81; of pig magnesium, \$38.54.

Magnesium suppliers admit the metal's drawbacks—not the least of which is that in castings more magnesium must be poured than aluminum to compensate for shrinkage—but they cite these big advantages:

- Magnesium can be machined at higher speeds and lower power than most other metals.
- Cutting-tool life is from 5 to 10 times longer than for any other metal.

• More shots-per-die can be made in magnesium than in competitive metals.

• Greater part-stability after machining decreases warpage rejects.

• No "aging" period is required for die-cast parts, so users' inventories can be kept low.

• Shipping costs of large parts are substantially lower because of magnesium's light weight.

Industry men admit that surface oxidation is a major hindrance to product development in some fields, and are now seeking a solution to the problem through intensive research. Several anti-corrosive finishes have been developed, but none is yet commercially attractive.

Industry observers predict magnesium will make its greatest headway in the next few years in the following fields:

- **Automobiles** — Spurred by Volkswagen's long-standing success with magnesium as an engine-transmission ingredient, some Detroit makers are begin-

ning to take another look at the metal. Two years ago, Chevrolet replaced aluminum with magnesium in the stator blades of the turboglide transmission. In the current model year, magnesium has shown up in Chevrolet dash-consoles, and Lancer instrument clusters. Chrysler Corp. is testing magnesium compressor impellers for use in gas-turbine engines, which some Chrysler engineers believe will begin to supplement reciprocating engines by 1966.

Nearly all Indianapolis '500' cars have magnesium wheels, brake anvils, differential housings, steering gear housings, and firewalls. The Metro-Lite Truck Body uses 400 lb. of magnesium sheet and extrusion. Other current automotive uses include fan spacers, fuel pumps, and oil-filter parts.

• **Office machines** — Dow, White Metal Rolling & Stamping Corp., and Bendix are all supplying components for office machines to the big producers:



"Comrade Agent send valuable
U.S. Industrial Secret...in America,
EVERYTHING HINGES ON IT!"

We'll make **IT** for you! For standard (5,000 different types and sizes) or special hinges, write or wire: C. Hager & Sons Hinge Mfg. Co., Victor & 111 Street, St. Louis 4, Mo. In Canada, Hager Hinge Canada Ltd., Kitchener, Ont.

Founded 1849, Every Hager Hinge Swings on 100 Years of Experience

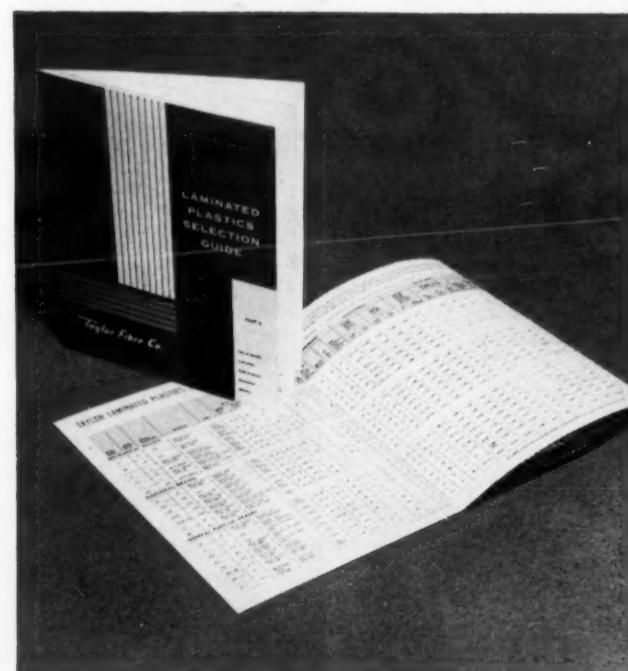


MAGNESIUM CONTAINERS for piggyback service offer bright hope of a new volume market for the light metal.

ice days that flash powder and incendiary bombs were made of magnesium. We have a problem on our hands of education."

Singleton points out that magnesium, in bulk, is no more dangerous to handle than any metal; for instance, magnesium plate can be torched to 3,000 F without igniting. Admittedly, good housekeeping is a must in areas where magnesium is machined. Accumulations of dust, powder, chips and flakes can be hazardous, and stringent

Buying LAMINATED PLASTICS...as sheet,



TAYLOR FIBRE CO. BELONGS AS AN APPROVED SUPPLIER

Taylor has the products... offers more than 50 grades of industrial laminated plastics... including paper, cotton cloth, nylon, asbestos, glass cloth, or other base material impregnated with phenolic, melamine, silicone or epoxy resins and formed into sheets, rods and tubes under heat and pressure. Also a number of composite materials, including copper-clad laminated plastics, vulcanized fibre and laminated plastics, rubber and laminated plastics, asbestos and laminated plastics, and aluminum and laminated plastics.

Use this Taylor Selection Guide to make selections of the Taylor laminated plastics that will fit your requirements.

Dictaphone, Smith-Corona, Remington-Rand, I.B.M., Underwood, and Friden. Typical applications include typewriter platen-cores and carriages.

Portable tools—Magnesium is likely to gain wider circulation as a component of hand tools because of its lightness. Ingersoll-Rand Co. is using it in chipping-guns, and McCulloch Corp. for saw-shielding.

Material-handling equipment—Brooks & Perkins, Inc., a leading magnesium fabricator for both industrial and military consumption, is emphasizing the handling-ease and safety values of the light metal in such prod-

ucts as dockboards, ramps, hand-trucks, and bintrucks.

B&P feels that insufficient attention has been given the personnel-safety advantages of light weight equipment. Example: Railroads have for years used thick steel boiler-plating for dockboards and loading ramps. These plates had to be manhandled into position, at serious risk to loading personnel. Only now, after years of hard selling, and with the decided help of union pressure, are some railroads beginning to accept magnesium equipment.

Home appliances—Bendix is predicting that magnesium will

make big inroads this year in such home appliances as vacuum cleaners, ironing boards, and floor polishers. Light weight is, of course, a strong selling point as far as the woman shopper is concerned.

Sporting goods—Bendix also is experimenting with magnesium tennis rackets and bowling pins, but it will have an uphill battle to overcome the public preference for wood.

Miscellaneous uses—Dow is making magnesium page forms for newspaper presses, and has provided Fruehauf with magnesium for REA Express' new 4 x 4 x 8-ft. 'piggyback' containers. Up to 20 of these modular container units can be placed on a railway flatcar; each is light enough to be handled by one man, aided by auxiliary equipment.

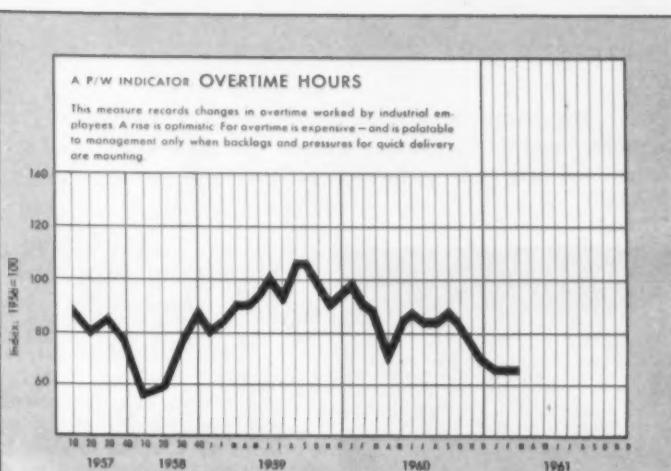
Other products already in use include: a magnesium ladder by White Metal Rolling & Stamping Corp.; magnesium luggage by Schwayer Bros., and Sperry-Rand's Doppler Inertial System, one of the largest airborne electronic components ever built of magnesium.

Penn Starting Production Of High Purity Tellurium

Revere, Pa.—Penn Rare Metals has started production of high purity tellurium metal in commercial quantities and four new germanium salts in semi-commercial quantities.

The company said the tellurium is 99.9999% pure. It is used in the preparation of thermoelectric materials and certain semiconductor compounds.

The four germanium salts are: germanium tetrachloride, germanium tetrabromide, germanium tetraiodide and germanium tetrahydride. The new products will be sold through Kawecki Chemical Co., Boyertown, Pa., which is the exclusive sales agent for Penn.



Index of Overtime Hours in Manufacturing

	Latest Month*	Month Ago	Year Ago	% Yearly Change
Total	67.9	67.9	89.3	-16.5
Hard Goods	56.7	56.7	83.3	-31.9
Ordnance & Accessories	62.1	55.2	79.3	-21.7
Lumber & Wood	78.8	66.7	84.8	-7.1
Furniture & Fixtures	53.6	57.1	92.9	-42.3
Stone, Clay & Glass	66.7	63.9	77.8	-14.3
Primary Metals	42.9	50.0	85.7	-49.9
Fabricated Metal Products	56.7	56.7	90.0	-37.0
Non Electrical Machinery	48.6	48.6	78.4	-38.0
Electrical Machinery	61.5	61.5	76.9	-20.0
Transportation Equipment	55.2	51.7	110.3	-50.0
Instruments	73.9	78.3	100.0	-26.1
Soft Goods	84.0	80.0	96.0	-12.5
Food	84.8	90.9	84.8	0
Tobacco	54.5	63.6	54.5	0
Textile Mill Products	76.9	73.1	115.4	-33.4
Apparel	100.0	75.0	116.7	-14.3
Paper	80.4	78.3	91.3	-11.9
Printing & Publishing	71.9	78.1	87.5	-17.8
Chemicals	87.0	87.0	104.3	-16.6
Petroleum & Coal Products	60.0	90.0	75.0	-20.0
Rubber Products	57.1	57.1	100.0	-42.9
Leather & Products	100.0	107.1	100.0	0

* March is the month for totals and major subtotals.
February is the month for individual industry figures.

A. M. Byers Co. to Stress Selling Rather Than Manufacturing End

Pittsburgh—A. M. Byers Co., a major producer of wrought iron pipe only in the larger sizes and is contracting the production of smaller sizes to other firms.

Industry sources said the decision to shift production to other mills on contract probably was made because the Byers mills are old. Almost all pipe today is made on high-speed continuous weld mills—equipment which Byers does not have.

Production Sporadic

While Byers has continued to make alloy steel in two electric arc furnaces at its Ambridge, Pa., plant, it is believed that production has been sporadic during the past several months. Reports are circulating in the industry that much of the equipment at Ambridge is up for sale.

A Byers spokesman emphasized, that the company will continue to sell alloy steel. He admitted, however, that the company is reappraising the costs of producing alloy steels in its own furnaces.

The company said it also plans to dismantle its skelp mill at Ambridge. At present, Byers is shipping wrought iron slabs and billets to other producers, who roll them into skelp. The skelp then is shipped to tube mills, where it is converted into finished pipe in smaller sizes for Byers' accounts.

Crown to Build

Los Angeles—Crown Zellerbach Corp. said it will begin construction soon of a corrugated shipping container plant here. Plans call for the facility to have 110,000 sq. ft. It is expected to go into operation within a year.

IRONBOUND HANDLING EQUIPMENT

A darn good way to store, segregate and move your product.

Standard as well as custom superstructures are available. Send dimensions, capacity and quantity for quotation.

IRONBOUND BOX & LUMBER CO.
738 RAMSEY AVENUE • HILLSIDE, NEW JERSEY
Representatives in principal cities

TRY US FOR THE FOLLOWING IRONBOUND EQUIPMENT:
Skids (Any Type)
Semi-Live Skids & Jacks
Floor Trucks, Box Trucks,
Shelf Trucks, Garment
Trucks, Roll Trucks, Dollies
& Py Bars, Specials

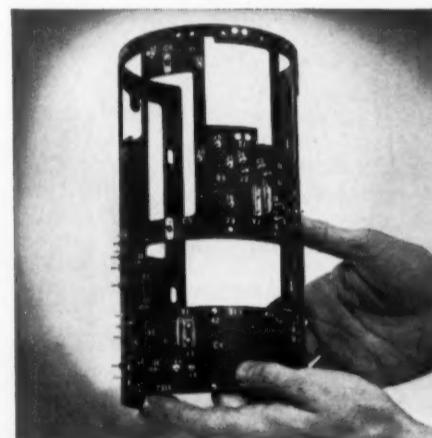
MODEL 40 Hardwood box truck with steel corners—any size and capacity. All wheel types and arrangements.

rod, tube or fabricated parts?

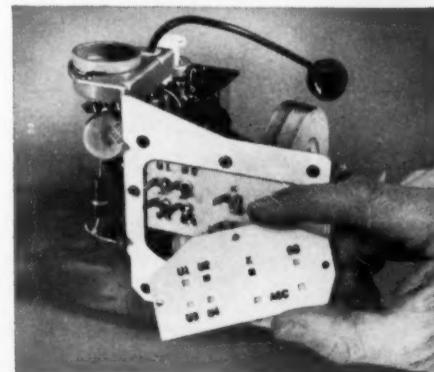
Taylor has the facilities. Its Norristown, Pa., plant, comprising some 300,000 sq. ft., produces both laminated plastics and vulcanized fibre . . . is one of the most completely integrated in the industry . . . even makes its own paper and a large percentage of its own resins. The La Verne, Calif., plant, with over 45,000 sq. ft. of floor space, specializes in the manufacture of laminated plastics for the convenience of West Coast customers. And both plants can fabricate parts from any Taylor materials to specifications, economically.

Taylor laminates offer many advantages over metals. They have a higher strength-to-weight ratio, are corrosion resistant, and can be fabricated more easily. This Taylor Selection Guide will help you evaluate the different grades available. Write for your copy today. Taylor Fibre Co., Norristown 55, Pa.

For applications requiring high strength retention at elevated temperatures, Taylor Grade GEC—an epoxy resin, glass fabric base material.

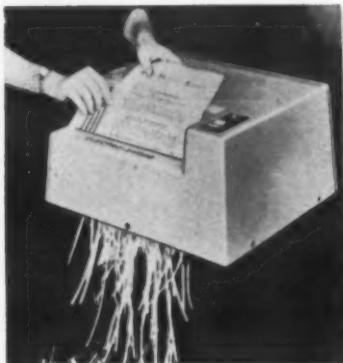


For high-temperature electrical applications and high-frequency radio equipment, Taylor Grade GSC—a silicone resin, glass fabric base material. Has high heat resistance, excellent electrical properties, and high arc resistance. Will not support combustion.



Taylor
LAMINATED PLASTICS VULCANIZED FIBRE

Here's your weekly guide to . . .



Shredding Machine

Destroys Papers

Electric shredder for office use destroys obsolete business records and confidential paperwork. The machine shreds papers into a 3/16-in. width within seconds, depositing them in a waste basket positioned underneath. The unit destroys multiple copies without requiring removal of staples. It operates safely and quietly.

Price: \$238.50. **Delivery:** immediate.
Electro-Shred Corp., U.S. 42 at West St., Lebanon, Ohio. (PW, 4/24/61)



TV Camera

Contains Control Circuits

Closed-circuit unit includes both camera and camera-control circuits, and requires only a monitor or home receiver to constitute a complete system. The 8-mc. video bandwidth permits a full 650-line resolution. Optional features include remote drive for the 4-lens turret, lens focus, and a filter for use over a wide range of ambient light.

Price: \$1,400. **Delivery:** immediate.
Cohu Electronics, Inc., 5725 Kearny Villa Rd., Box 623, San Diego 12, Calif. (PW, 4/24/61)



Fluorescent Fixture

Holds in Any Position

Fluorescent fixture for desk or bench has high-tension springs on the supporting arms to prevent sagging when it is adjusted to any position. The arms extend to 40 in. and pivot 360 deg. on the base which contains the ballast. The fixture comes with mountings for a table surface, and with clamps for bench or drawing board. It is available in black, grey, bronze, and green.

Price: \$22.12. **Delivery:** immediate.
O. C. White Co., Worcester, Mass. (PW, 4/24/61)



Plating Unit

Finishes Electronic Parts

Compact unit is equipped for precision plating of electronic parts, specification plating, or "pilot plant" setups. It is 30 in. x 26 in. x 18 in. to the work top and permits barrel or rack plating on a mass-production basis with any cold alkaline solution and most acid plating solutions.

Price: \$745 (\$195 extra for storage cabinet). **Delivery:** 4 wk.
Meeker Co., Nutley 10, N. J. (PW, 4/24/61)



Soap Dispenser

Holds Powder or Liquid

Dispenser holds up to 40 oz. of powder or 34 oz. of liquid soap. The plunger valve is geared for light, medium, or heavy use. The heavy-duty, rust-resistant cover is supplied in a standard white; in other colors, on special order. A special adhesive kit is available when mounting is desired without drilling.

Price: \$7.95. **Delivery:** immediate.
U. S. Borax, 630 Shatto Pl., Los Angeles Calif. (PW, 4/24/61)

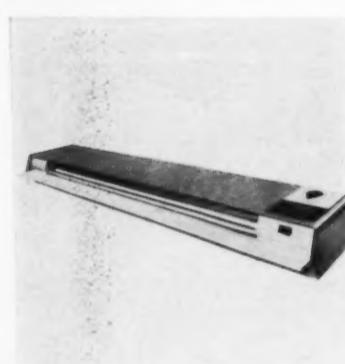


Measuring Tape

Has Cumulative Markings

Steel tapes come in 25-, 33-, 50-, 66-, 75-, and 100-ft. lengths on a 3/8-in width. Graduations are in feet, inches and eighths of inch, with red foot-figures before every inch mark to show total feet and inches at a glance. Markings are bonded to the steel and recessed below a corrosion-resistant, satin chrome finish.

Price: \$5.50 to \$10.50. **Delivery:** immediate.
L. S. Starrett Co., Athol, Mass. (PW, 4/24/61)

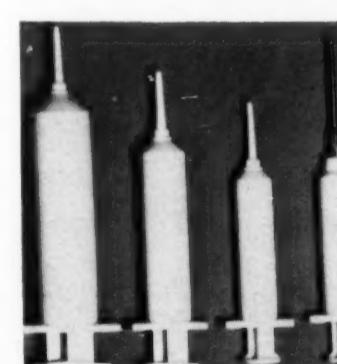


Diazo Unit

Copies Low Volume Drawings

Exposure unit produces highly legible copies of drawings where volume is moderate. The semi-dry unit handles translucent copy up to 42 in. wide by any length, at up to 36 ipm. Prints are developed by sponge application of the developer or by dry processing in a developing tube. The unit is 5 1/2 in. x 56 in. x 12 in.

Price: \$295. **Delivery:** immediate.
General Aniline & Film Corp., 513 Corliss Lane, Johnson City, N. Y. (PW, 4/24/61)

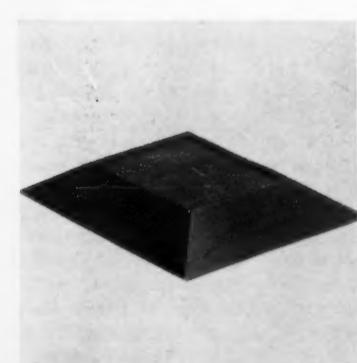


Potting Syringe

Ejects Up to 30 cc.

Syringe for potting, encapsulating, sealing, and adhesive applications comes in 6-, 12-, and 30-cc. sizes. Two modified 6-cc. models will receive steel needles with 0.30- and 0.60-in. orifices 1 1/2 in. long. The polyethylene syringes facilitate exact applications without dripping, starving, or flooding.

Price: 34¢/each to 54¢/each. **Delivery:** immediate.
Philip Fishman Co., 7 Cameron St., Wellesley 81, Mass. (PW, 4/24/61)

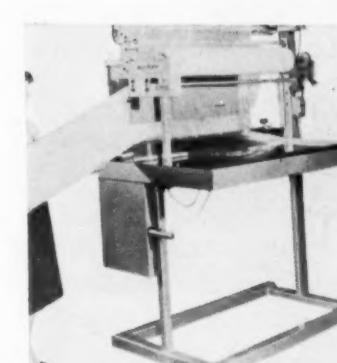


Machine Pedestal

Muffles Noise and Vibration

Pedestal for floor machines has a sealed air chamber which absorbs noise and reduces machine vibration. The hard rubber device comes in four types: with a 1 1/8- x 2-in. top base for machines weighing up to 500 lb. and 1,000 lb., and with a 3- x 2 3/8-in. top base for machines to 1,000 lb. and 3,000 lb.

Price: \$1.10/each to \$1.60/each. **Delivery:** immediate.
Evans Specialty Co., Inc., P.O. Box 8128, Richmond 23, Va. (PW, 4/24/61)



Packaging Machine

Wraps Large Products

Automatic wrapping machine packages extra large products in polyethylene plastic. It provides custom packaging for products up to 36-in. wide, 48-in. long, and 10-in. thick. The machine will safely seal products weighing up to 18 lb. or 1/2 lb. per lineal in. of horizontal seal.

Price: from \$4,000. **Delivery:** approx. 6 wk.
Mehl Mfg. Co., 2057 Reading Rd., Cincinnati, Ohio. (PW, 4/24/61)

New Products



Mold Spray

Simplifies Painting of Parts

Silicone mold spray, packed in a 16-oz. aerosol can, insures quick release of parts, without causing "fish eyes" or poor adherence of paint coatings. It may be used with ceramic, glass, and rubber, as well as plastic parts, and for resin-sand molds and masking during resin-dip applications.

Price: \$1.60. **Delivery:** immediate. **Spray Products, Inc., 2075 E. 65th St., Cleveland 3, Ohio. (PW, 4/24/61)**



Contact Adhesive

Bonds With High Peel Strength

Neoprene contact adhesive bonds supported vinyl or fabric-backed urethane sheets to metal, wood, and composition bases; and thin gage metals or foils to wood, cement asbestos board, and composition bases. It has high-peel strength and good water resistance.

Price: \$4.90/gal. (in 1-gal. containers). **Delivery:** 2 wk.

Armstrong Cork Co., Industrial Div., Lancaster, Pa. (PW, 4/24/61)



Welding Helmet

Has Adjustable Headgear

Helmet of fiber glass and polyester resin, has thermoplastic headgear which adjusts easily to exact size. The shell will not warp when exposed to heat or moisture and has a metal lens holder to prevent shock breakage of the lens. Four models are available, one with a flip-type holder to permit weld inspection without removing the entire helmet.

Price: \$8 to \$11. **Delivery:** immediate. **Lincoln Electric Co., Cleveland 17, Ohio. (PW, 4/24/61)**

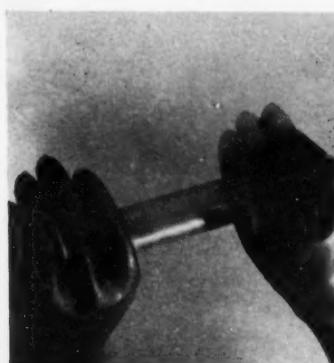


Torch

Lights Automatically

Air-acetylene torch triggers on and off with no external lighting. When the trigger is pressed, a battery-operated device lights torch instantly. Releasing the trigger shuts off the gas. The torch is supplied in a kit with three tips (fine, medium, and large) and may be used for silver brazing, soldering, and tempering of light gage metals.

Price: \$24.95. **Delivery:** immediate. **Navan Products, Inc., 900 N. Sepulveda at Imperial, El Segundo, Calif. (PW, 4/24/61)**



Industrial Gloves

Have Cuffs, Will Travel

Work gloves with gauntlet design are of extra-long length so that the wrists can be turned back to form cuffs and catch drippings. They are available in a number of gauges with smooth or rough-textured fingers. The gloves are intended for protection against acids, alkalis, oils, and greases.

Price: \$31.53 to \$56.88 per doz./pr. **Delivery:** immediate. **B. F. Goodrich Co., Industrial Products Div., Akron, Ohio. (PW, 4/24/61)**

Price data that accompany each product description are list or approximated prices supplied by manufacturers. Unless otherwise noted, prices quoted are for the smallest quantity that can be ordered.

This Week's

Product Perspective

APRIL 24-30

COMPUTER ROUTINES can now be used interchangeably on different make machines thanks to COBOL (Common Oriented Business Language) techniques now coming into use. In addition, COBOL greatly reduces programing time.

COBOL is a problem-oriented (rather than machine-oriented) language, which means that the programmer tells the computer what to do in simple everyday English instead of in complicated "machine language" codes of computers. He might, for example, tell the computer to "subtract deductions from net," instead of "63-010425-00-620000." The COBOL compiler section of the computer takes the English instructions and automatically changes them into language that the machine can understand.

The interchangeability of COBOL systems was demonstrated for the first time last December when Remington Rand and RCA successfully interchanged programs originally designed for the other manufacturer's computer.

Since the programmer doesn't have to translate the job into machine language, programing time is substantially reduced. Remington Rand estimates

<i>mathematical problem:</i> $d = a(b + c)$	<i>data processing problem:</i> $\text{FICA DEDUCTION} = \text{FICA RATE} (\text{GROSS PAY} + \text{RAISE})$
<i>ALGOL statement:</i> $D := A \times (B + C);$	<i>COBOL statement:</i> $\text{COMPUTE FICA-DED EQUALS FICA-RATE TIMES (GROSS-PAY PLUS RAISE)}$

New COBOL and ALGOL programming techniques state problem in language similar to original data processing terminology, instead of complicated number system which was previously used to change problem into machine language.

that a program taking two to three weeks to prepare by conventional techniques should require only two days with COBOL. Program revision comes in for even more impressive savings—two hours instead of two to three weeks. A programmer can be schooled in the new techniques in two weeks, instead of conventional eight.

COBOL is the brainchild of the Conference on Data Systems Languages (CODASYL), a voluntary cooperative effort of a number of computer users and manufacturers under the sponsorship of the Department of Defense. A similar system, ALGOL (Algorithmic Language) is designed for the mathematician, and lets computer commands be expressed in nearly pure algebra.

Here's what some major EDP makers are offering:

- **IBM.** System has just been announced for the 1401 with units for 705, 705 III, 709, 1401, 7070, 7080, and 7090 under development. The COBOL processor for the 1401 will be available in two versions, one for computers with 4,000 digit magnetic core storage, and the other for memories of 8,000, 12,000, or 16,000 characters. Both versions also will require six magnetic tape units, an IBM 1403 printer, a 1402 card punch, and advance programming, high-low-equal-compare and multiply-divide features.

- **Remington Rand.** Compiler now ready for UNIVAC II and solid-state 80 computer. Compilers will be available for other Univac computing systems at time of first delivery.

- **General Electric.** GECOM (General Compiler) for both COBOL and ALGOL will soon be ready for GE 225 general purpose computer. Processors for entire computer line will follow. GE also has announced a new method of English language instruction to computers called TABSOL (Tabular Systems Oriented Language), which the company claims "permits broadening of computer applications from straight problem solving to complex decision making." It is a method for describing the decision-making processes in table or tabular form.

- **Radio Corp of America.** Compiler for RCA 501 medium-scale computer was put in operation in New York five months ago. Units for 301 and 601 are nearing readiness. RCA reports that COBOL cut programing time nearly 30% at its New York data center with savings of 50% forecast. "COBOL can shorten the time required to train a company's own data processing team from months to as little as a week," a company spokesman noted.

- **Burroughs.** New B 5000 computer was designed specifically for COBOL and ALGOL use. Burroughs claims the same program will run equally well on small, medium or large-scale B 5000 systems because the computer instantly recognizes the addition or deletion of system parts and automatically adjusts the program to the machine.

Cleaning Solution

Contains No Ammonia

Ultrasonic cleaning solution is intended for use where ammonia is chemically undesirable. It is a waterless medium for cleaning copper, brass, and steel parts, leaving a high luster. Since it contains no volatile ammonia, it loses none of its cleaning properties through dissipation in the atmosphere.

Price: \$3.50/gal. **Delivery:** immediate.
L & R Mfg. Co., 577 Elm St., Kearny,
N. J. (PW, 4/24/61)



Filter Flask

Has Replaceable Tube

Pyrex flask with replaceable tube remains useful even if the glass connector should be broken. The tooled glass tube has a neoprene grommet at the base; the connector is inserted into the hole in the neck. The flasks are available in 250-, 500-, and 1,000-ml. capacities.

Price: \$1.95, \$2.50, \$3.90. **Delivery:** immediate (after June 1).
Corning Glass Works, Corning, N. Y.
(PW, 4/24/61)



Remote Control Valve

Withstands 150 Psi.

Remote control valves, for 1- to 6-in. pipe sizes, are rated for 150 psi. water at 150 F. Tubing connects one type of valve to an hydraulic controller. A solenoid model is connected by wiring to an on-off switch. Both types are of cast bronze and close automatically in case of hydraulic or electric failure.

Price: \$26 to \$420 (add \$20 for solenoid valves). **Delivery:** immediate.

Febco, Inc., 1933 Blake Ave.,
Los Angeles 39, Calif. (PW,
4/24/61)



Welding Gun

Welds Thin Gage Metals

Air-cooled gun is designed for gas-shielded, metal-arc welding of thin gage ferrous metals. It uses .035-in. and .045-in. dia. steel wires in combination with a variety of wire feeding equipment. The lightweight gun has a 60-deg. goose-neck design, permitting access to hard-to-reach places.

Price: \$165. **Delivery:** immediate.

Air Reduction Co., Inc., 150
E. 42nd St., New York 17, N. Y.
(PW, 4/24/61)

Leading automaker saves because...
INNERSHIELD ELIMINATES



Two Innershield heads moving horizontally with two moving elliptically weld brackets to rear axle in 4½ seconds. No separate flux or gas systems needed.



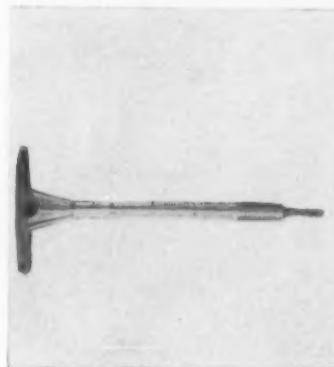
Instrument Cabinet

Holds Electronic Assemblies

Cabinet of 20-gage steel, with a blank front panel of aluminum, is a sturdy, portable encasement for electronic assemblies. Cabinets are 12½ in. long and 5 in. high, available in 5½- and 11-in. depths. The finish is black wrinkle. Removable, chrome-plated handles are optional.

Price: \$10 to \$15 (depending on quantity). **Delivery:** immediate.

General Metal Products Co., Easton, Pa.
(PW, 4/24/61)



Wrench

Tightens Hex Screws

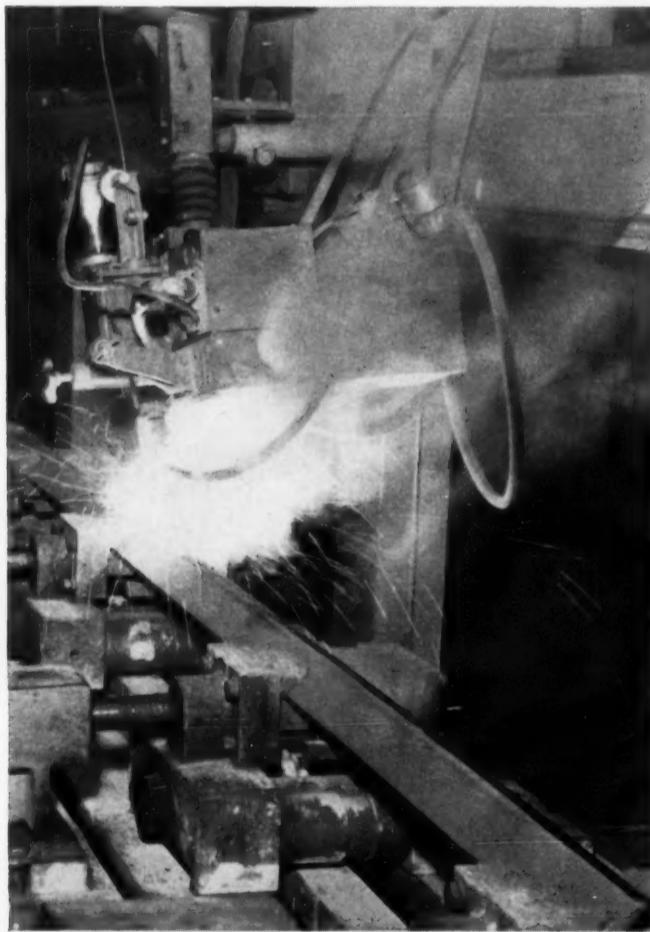
"T"-handle wrench for hex socket screws simplifies tightening of hex screws in deep, hard-to-reach recesses or counter bores. Bit size is cast on each wrench for ready identification. They are available in sets or may be bought individually. Sizes range from $\frac{1}{4}$ in. to $\frac{5}{8}$ in.

Price: 62¢/each to \$3.70/each. **Delivery:** immediate.

Bowersox Precision Castings, Inc., 3523 W. Ninth St., Chester, Pa. (PW, 4/24/61)

COSTLY FLUX HANDLING

Lincoln's new Innershield process is clean. No need for expensive flux handling and recovery systems. No abrasive dust to wear out costly, complex fixtures. Atmosphere stays cleaner, simplifies housekeeping, improves working conditions. No slag removal problems.



Innershield's special tubular electrode contains all ingredients for welding—fluxes, deoxidizers, filler metal. No Argon or CO₂ needed. Here, Innershield welds angle iron for farm machinery part at 80 ipm compared to 40 ipm with CO₂. Tanks, hoppers, structural beams all are now welded with this process, too.



Semi-automatic Innershield Squirt lets an amateur turn pro in minutes. Electrodes bridge gaps caused by poor fitup. Slag flicks off with a swipe of the electrode tip. Have a Lincoln field engineer show you how Innershield Squirt can increase the operating factor and deposition rates on your jobs.



New Innershield brochure available. Also, Weldirectory which provides buying guide for all arc welding electrodes. Get both. Write Lincoln Electric Co., Dept. 3821, Cleveland 17, Ohio.

LINCOLN
WELDERS

THE WORLD'S LARGEST MANUFACTURER OF ARC WELDING EQUIPMENT AND ELECTRODES



Ultrasonic Drill

Works Varied Materials

Ultrasonic drill may be used for jobs such as multiple machining, slicing, cutting, etching, and impact grinding. It handles tool sizes up to $\frac{3}{4}$ in. on a diagonal. Sample per min. rates include glass at .200 in.; ceramic, .060 in.; ferrite, .030 in.; germanium, .050 in.; and tool steel, .008 in.

Price: \$1,875 (including generator). **Delivery:** 3 wk.

Gulton Industries, Inc., 212 Durham Ave., Metuchen, N. J. (PW, 4/24/61)



Industrial Gloves

Resist Deterioration

Jersey-lined work gloves are coated with a vinyl compound that resists abrasion, snagging, tearing, and is puncture-proof. They will not deteriorate upon contact with oils, acids, caustics, or other harsh substances, and remain flexible under extreme conditions and in cold temperatures.

Price: \$10.88 per doz./pr. **Delivery:** immediate.

Pioneer Rubber Co., Willard, Ohio. (PW, 4/24/61)

Purchasing Week Definition

Metal Aging

Aging—A change in the physical properties, such as yield strength, of a metal or alloy that generally takes place over a period of time. It may be artificially stepped up by varying the environment.

Age Hardening—Hardening of a metal by aging, usually after cooling or cold working.

Artificial Aging—Aging induced at higher than room temperature.

Interrupted Aging—Aging at two or more temperatures, by steps, and cooling to room temperature after each step.

Progressive Aging—Aging by increasing the temperature in steps or continuously during the cycle.

Quench Aging—Aging induced by rapid cooling after solution heat treatment. During solution heat treatment, an alloy is heated to a suitable temperature and held there until one or more constituents enter into solid solution—a crystalline state with a homogenous content of two or more chemical species. The alloy is then cooled rapidly enough to hold the constituents in solution. (PW, 4/24/61)

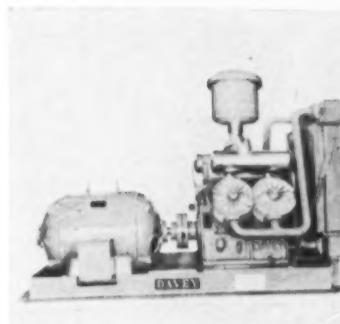
Air Compressor

Delivers Up to 150 Hp.

Reciprocating units, rated from 7½ hp. to 150 hp., include single-stage models for operation at 50 psi., continuous pressure; 2-stage, at 125 psi. Unloaders hold intake valves off seats when pressure reaches maximum settings. When it drops 10 psi., valves are released to operate from an adjustable pilot control valve.

Price: \$700 to \$7,500. **Delivery:** 30 days.

Davey Compressor Co., Kent, Ohio. (PW, 4/24/61)



Power Converter

Alters Grinding Machine

Power converter changes conventional grinders to electrolytic grinders, so that major portion of metal is removed by electrolysis and only about 10% by the grinding wheel. Five models offer 250- to 1,500-amp. capacities, increasing grinding speeds from 3½ to 10 times.

Price: \$4,380 (500-amp. unit). **Delivery:** immediate to 6 wk.

Hi-Carb Corp., 1055 E. 260th St., Cleveland 32, Ohio. (PW, 4/24/61)



Fastener

Becomes Permanent Clamp

Fastener, available in a range of square and rectangular shapes, may be attached permanently and does not have to be removed to free materials being held. Its hinge may be opened and closed indefinitely without metal fatigue. A fast-action key nut secures the clamp, allowing any degree of mechanical take-up.

Price: approx. \$1. **Delivery:** 2 to 3 wk.

TA Mfg. Corp., 4607 Alger St., Los Angeles 39, Calif. (PW, 4/24/61)

HERE'S

A. O. SMITH HAS THE HORSES...

HURDLE THORNY APPLICATION PROBLEMS

... a line of industry-wide favorites, built to make tough applications seem easy

When it comes to building electric motor-powered equipment, make sure of your horsepower source. Before you specify any motor brand, consult with your A. O. Smith Motor Man. He'll show you how the horses of A. O. Smith (a full line of integrals and fractionals both polyphase and single-phase) help users surmount application barriers.

And A. O. Smith delivers the horses that deliver the goods—24-48 hour action on all parts and service orders.

COPYRIGHT 1960, A. O. SMITH CORP.

Through research ... a better way
A.O.Smith
CORPORATION
ELECTRIC MOTORS
Tipp City, Ohio
A. O. SMITH INTERNATIONAL S. A.
Milwaukee 1, Wisconsin, U. S. A.

Water Soluble Linseed Oil Developed for House Paint

Buffalo—Spencer Kellogg & Sons, Inc., has developed a water soluble linseed oil for use in the manufacture of outside house paint.

The oil permits one coat coverage on both dry and moist, dewy surfaces, and at cold temperatures. The paint has excellent adhesion to chalky surfaces and permits water cleaning of brushes. Water solubility of the paint will mean a reduction in cleanup time and a total reduction in the time needed for any particular paint application job.

Spencer Kellogg has applied for a patent on the product which it emphasizes is a solution, not an emulsion.

A CASE IN POINT



**THIS
MAN
CHANGED
HORSES**

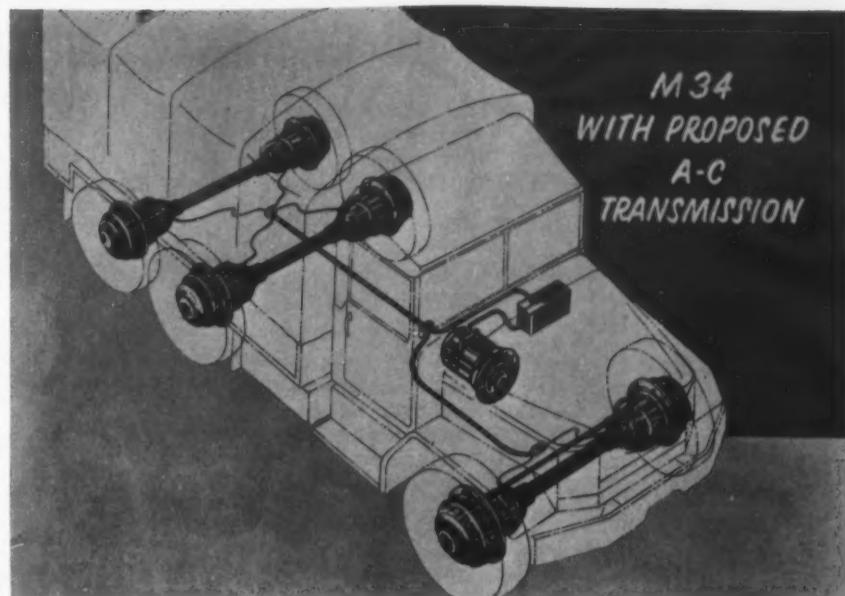
Mr. V. F. Radde, President of Skidmore Corporation, reports, "Our condensate pumps are invariably located near boiler rooms and frequently in an atmosphere full of dirt and coal dust. This A. O. Smith motor is the *only* capacitor start motor we've found that we can use in this kind of service."

Sure, we asked Mr. Radde for this testimonial . . . because we knew he had changed horses . . . switched to A. O. Smith motors because of troubles he had experienced with other makes. And more important, he was glad to do so because the sealed-capsule motor had eliminated his problems. In contrast to every other make, the canopy housing totally encloses the starting capacitor, mounting switch, actuator and automatic overload protector from insects, coal dust, dirt and other impurities.

Furthermore, in addition to superior mechanical features, it's a motor designed specifically for centrifugal pump operation . . . higher performance at full and service-factor loads means higher performance for your pump. It adds up! Mechanically and electrically, you get more motor from the same sales dollar when you put your money on the horses of A. O. Smith.



GO-TOGETHERS — Dependable Skidmore condensation pumps powered by A. O. Smith vertical close-coupled pump motors.



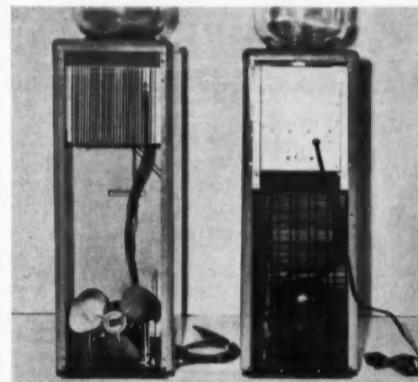
ELECTRIC DRIVE proposed for M34 truck uses conventional gasoline engine to generate electricity which provides power for electric motor coupled to each wheel. Static converter allows speed of motors to be controlled independently of gas engine rpm.

Westinghouse Begins Making Thermoelectric Office Water Coolers

Pittsburgh — Westinghouse Electric Corp. has entered into full production of a thermoelectric water cooler for office use. The refrigeration process is the direct result of electricity without the need for a compressor.

Takes 25% Less Room

The cooling system, which takes 25% less room than a compressor unit, passes electricity through the junctions of two dissimilar semiconductor materials, creat-



THERMOELECTRIC COOLER on left needs no compressor—only moving part is small fan to circulate air. Conventional unit on right has full refrigeration complement.

ing cold without the use of moving parts. The cooler is housed in a grey, 36-in. high cabinet. Westinghouse is producing an identical unit in white for home use.

Simpson Timber Develops Modular Partition System

Seattle—Simpson Timber Co. is marketing a modular partitioning system for dividing open areas into rooms or cubicles for offices.

Panels for back walls are finished on one side in a vinyl wood grain surface. Partitions, finished on both sides, have a rigid core of insulating board for sound control and to restrict heat transfer. Sections are supplied in 2-ft. widths, 8 ft. or 10 ft. high, and for floor-to-ceiling, free-standing, or counter height partitioning. Doors come in heights of 6 ft. 8 in., or 7 ft. 11 in.

Three Finishes Available

Three finishes are available—a silvery grey wood, a dark brown wood grain, and a factory applied opaque prime ready for further painting.

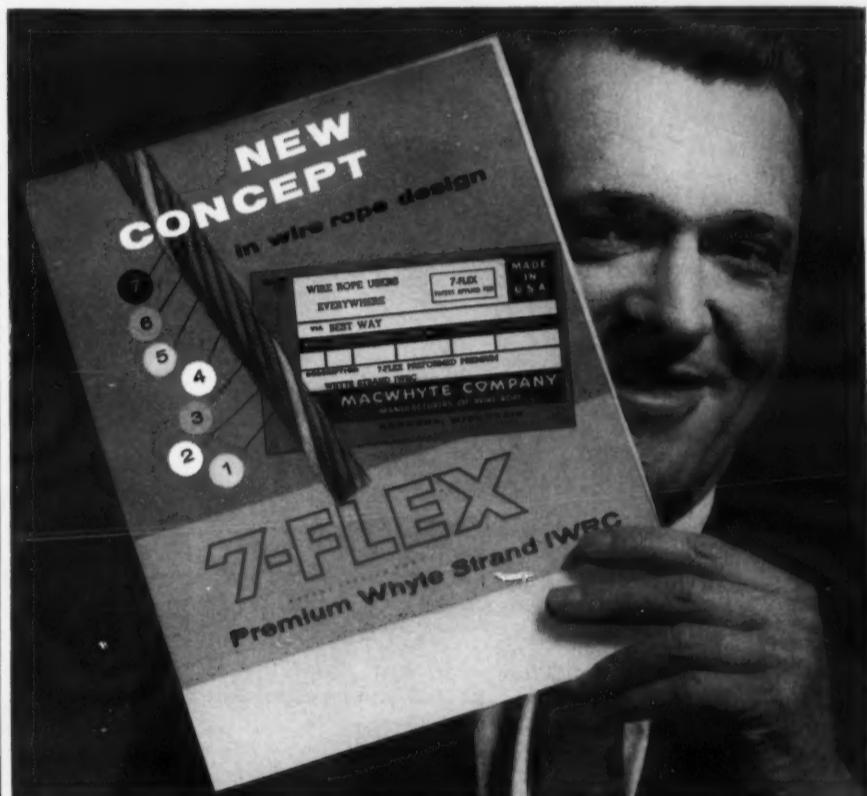
Electric Drive Said To Cut Truck Weight

Cleveland—Jack & Heintz, in cooperation with the Reo Div. of White Motor Co., has developed a four-wheel electric drive that it says cuts a ton of dead weight from a 2½-ton truck.

The Army is considering the system's use on its M34 truck and is testing it on military vehicles at the Detroit arsenal it was reported.

Eliminates Many Parts

Electric motors on each wheel are powered by an alternating current generator driven by a conventional automotive engine. The system eliminates many transmission parts, including axles, differential, and drive shaft. A static frequency changer permits wheel speeds independent of that of the engine, meaning that the engine can operate at the most economical speed while the power going to the wheels is capable of moving the truck at high speeds.



BIGGEST NEWS in wire rope in years!

Macwhyte's new 7-FLEX is sure to change your thinking about wire rope!

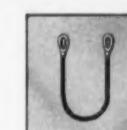
There's absolutely no other wire rope like 7-FLEX! It's an all-purpose rope, as flexible as 8-strand—as rugged as 6 x 19—as fatigue-resistant as 6 x 37.

7-FLEX has 16 2/3% more wearing surface than 6-strand rope. There is less unit pressure between rope and sheave, so less rope and sheave wear. There is more sheave contact, less rope-creep. Result: longer rope life, less downtime, lower operating costs!

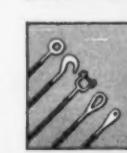
You owe it to your company to learn more about 7-FLEX. Ask any Macwhyte distributor. Free bulletin 6010-R on request.



Corrosion-Resisting Wire Rope
— Many sizes and constructions in Stainless Steel, Monel Metal and plastic or nylon coated. Meet the requirements imposed by alkaline and acid conditions and marine atmospheres, temperatures, and humidity. Send for Bulletin 49-30.



Slings — Safe, easy-to-handle Macwhyte slings for every lifting need are available in round-braided, flat-braided, or Safe-Guard styles. Many standard designs. Also custom-made to your requirements. Send for Bulletins 5300-R and 5886.



Wire Rope Assemblies — Safe-Lock wire rope assemblies are precision made to your order in the size, length, and strength needed. Uniform high quality with fittings permanently swaged to the rope. Many standard designs. Send for Catalog 6101.



MACWHYTE

Wire Rope COMPANY

2900 FOURTEENTH AVENUE, KENOSHA, WIS.
Wire Rope Manufacturing Specialists Since 1896

Douglas Aircraft Planning to Build Combination Cargo-Passenger Jet

Los Angeles—Douglas Aircraft said it will build a combination cargo-passenger version of its DC-8 jetliner that will cut costs for both air freight and passengers.

The new plane will be capable of carrying 52,000 lb. of cargo plus 54 passengers on a North Atlantic flight, said Edward F. Burton, Douglas vice president. He said that with this load cargo costs could be reduced 50%—from the current 30¢-35¢/ton

mile to 15¢/ton mile. Passenger costs could be decreased 20%—from today's 7.1¢/mile to 5.7¢/mile, the Douglas vice president pointed out.

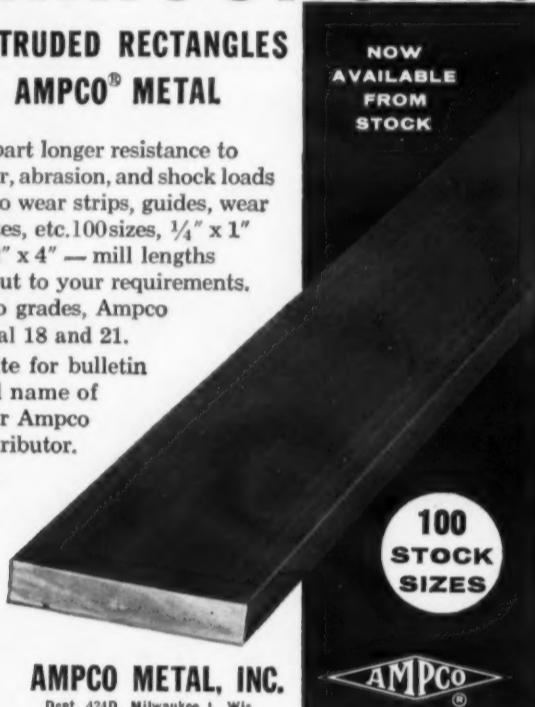
Douglas expects to have a prototype model of the new plane ready for flight by August of next year.

Industry sources report that Boeing also is planning to enter the cargo-passenger field with a combination version of the 707 jet transport.

ANNOUNCING

EXTRUDED RECTANGLES OF AMPCO® METAL

Impart longer resistance to wear, abrasion, and shock loads — to wear strips, guides, wear plates, etc. 100 sizes, $\frac{1}{4}$ " x 1" to 2" x 4" — mill lengths or cut to your requirements. Two grades, Ampco metal 18 and 21. Write for bulletin and name of your Ampco distributor.



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WEST COAST DIV.: HUNTINGTON PARK, CALIF.
SOUTHWEST DIV.: GARLAND (DALLAS COUNTY), TEXAS

D-73

NEW CURVED brazing washers and shims

The operator no longer needs three hands to put the components together!

Applications on which one tube is radious or saddled to fit over another are sometimes difficult to preform with a washer or shim. The stiffness of the washer may hold the radious member away from the other tubes. By curving the washer to the curvature of the tube, the problem is minimized. Curving a shim permits snapping of the shim onto the tube.



Write for FREE
20 page "PREFORM
BRAZING HAND-
BOOK"

LUCAS-MILHAUPT Engineering Co.

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In the World of Sales

Edward Sperr has been promoted to sales manager, **Industrial Truck Div., Clark Equipment Co.**, Chicago.

L. Ben Powers has been appointed district sales manager, **Clemson Bros., Inc.**, Middletown, N. Y.

Henry M. Hanbury has been named general sales manager, and **Jack M. Schippers, Ronald D. Nelson, John D. Johnson, and W. F. Robertson** have been made assistant general sales managers, **Texaco, Inc.**, New York City.

George R. Dunbar has been advanced to manager of aviation industry sales, **Westinghouse Electric Corp.**, Pittsburgh.

Edwin D. Taylor has been elevated to Linear Beam Dept. sales manager, **Electron Tube Div., Litton Industries**, San Carlos, Calif.

M. T. Churchia has moved up to manager of sales, **Mentor Products, Inc.**, Mentor, Ohio.

Stanley H. Levin was assigned the post of systems division sales manager, **Giannini Controls Corp.**, Duarte, Calif. He was formerly with General Electric Co.

Daniel J. Coughlin was promoted to general sales manager, and **Raymond J. Considine** was promoted to sales manager, **Marine and Industrial Hardware**

Div., Brewer-Tichener Corp., Cortland, N. Y.

Oliver Diamond has joined **Hauck Mfg. Co.**, Brooklyn, N. Y., as sales manager of the **Equipment Div.** He was with Witco Chemical Co.

B. L. Lerch has been advanced to sales manager, **Oil and Electric Head Div., General Controls Co.**, Skokie, Ill.

Steward E. Robinson has been named vice president in charge of eastern sales, **Electro Lighting Corp.**, Chicago.

James R. Petty was given the post of manager branch sales office **Fairmont Aluminum Co.**, Milwaukee, Wis.

William E. Wagner has been elevated to manager of residential metals sales, **W. P. Fuller & Co.**, Covina, Calif.

Harold F. Griffiths has taken the post of sales manager, **Federal Tool and Mfg. Co.**, Minneapolis.

C. J. Brown has been appointed general manager of industrial chemical sales, **Collier Carbon and Chemical Corp.**, Los Angeles.

Edward J. Cross was made sales manager, **Eastern Sales Div., Ardmore Products**, Northbrook, Ill.

Ralph C. Schaeffer has been advanced to district sales manager, **Pennsalt Chemicals Corp.**, Salt Lake City.

Lawrence A. McDonald has been promoted to general sales manager, **Arthur Colton Co.**, Detroit.

Samuel E. Manilich has joined the Metal Processing Dept., **Industrial Div., Nopco Chemical Co.**, Newark, N. J., as sales manager. He was with American Oil & Supply Co.

Dept. of Defense to Put St. Louis Ordnance Plant Up for Auction Next Year

St. Louis—Manufacturers searching for new plant space may find the answer to their problems next year when the Dept. of Defense puts the giant St. Louis Ordnance Plant on the block.

The facility, which recently was declared surplus property by the government, consists of 49 large buildings and 263 small ones on a 276-acre site. The Army said all the buildings are in good condition and well suited for light manufacturing and commercial use.

It is expected that the General Services Administration will put the plant on sale after June 30, 1962. The facility cost \$83.3-million when it was built in 1941 for production of small arms ammunition. Under the surplus property law, the plant will be offered first to the state, then to the city, and finally to private buyers.

SKF to Make New Line Of High Temp. Bearings

Philadelphia—SKF Industries says it is ready to begin producing in commercial quantities a new line of bearings that will operate without lubrication at temperatures of up to 1,000 F.

A company spokesman said the bearings will cost about three times more than bearings of similar size made out of conventional materials. But operating economies achieved through elimination of lubrication posts will counterbalance the higher initial price of the new bearings, he said.

The high temperature bearings are made of carbides, ceramics, and heat resisting alloys of exotic metals. The company said the new bearings should find many applications in the missile, aircraft, and gas turbine engine fields.

Rectifier Sells for 58¢

Phoenix—An 18-amp silicon rectifier is available from Motorola Semiconductor Products, Inc., at 58¢ in quantities of 10,000. The company attributes the low price to its "high volume techniques" of manufacture.

The 18-amp. rectifier is housed in a hermetically sealed, $\frac{5}{8}$ -in. dia. case with an $\frac{1}{8}$ -in. long axial-lead top terminal. It is designed for press-fitted mounting into a heat sink, and is rated for operation in a case temperature range of -65°C to $+175^{\circ}\text{C}$.

FABULOUS "LABELS"



In a whirl
When labels curl?

PermaFlat
Is the cure for that?

Smart purchasing agents keep schedules smooth by analyzing the extra value inherent in Dennison PermaFlat Gummed Paper for labels. PermaFlat can't curl, weather or not. Everybody's sunnier . . . printer, production manager and packaging engineer . . . when you specify Dennison PermaFlat.

✓ The non-glossy gummed surface is your assurance of curl-free performance.

Dennison PermaFlat
Gummed Paper...

AS CURL-FREE as ungummed paper BEFORE, DURING and AFTER printing
Dennison Manufacturing Co., Framingham, Mass., Drummondville, Quebec

Rubber Contracts Augur General Labor Peace

(Continued from page 1) union) already has laid its demands on the table.

Although the telephone workers, like many others, have had to cope with automation, the CWA is concentrating on economic demands, and is planning to ask for a fat wage increase, longer vacations, earlier pensions, and the like.

No Great Breakthrough

In spite of intense pressures concerning automation clauses prior to the rubber negotiations, the United Rubber Workers achieved no great breakthroughs in this direction. A number of fringe benefits were liberalized (which Goodyear said would add materially to costs), and the company agreed to "notify" the union of any proposed manufacturing changes that would lead to more automation. The plan: to negotiate at that time.

In the wage area, Firestone handed the industry a major surprise by lumping wage and "master" contract negotiations in one session. Result: a 7½¢ hourly hike in wages for tire workers this year, and an additional 7¢ in 1962. Supplemental benefits were largely the same as those granted by Goodyear.

In all probability, coming negotiations with General Tire, Seiberling, U. S. Rubber, and Goodrich will follow the same pattern. Goodyear also must talk wages with the union.

Press for Wage Rises

The rubber settlements indicate that in other 1961 bargaining, labor leaders will continue to press for steady, but unspectacular, rises in wages and for more protection for workers laid off by automation.

However, the Teamsters continued to chalk up wage hikes in negotiations with regional trucker organizations.

Earlier increases in the Midwest and South spread to the East last week when the Teamsters won pay increases totaling 58¢ an hour over a six-year period from 500 southern New England trucking companies. The contract also bound truckers to go along with any pay boosts that might be obtained in the Midwest in early 1964.

Regional Teamster negotiations coming up in other parts of the country are expected to follow the same general pattern.

A Counter Trend

In developments running counter to the wage hike trend, the Dayton local of the International Union of Electrical Workers said last week it will not demand a pay increase when new contract negotiations at General Motors' Delco division plant begin July 1. The workers will ask only for fully-paid insurance and other fringe benefits to "compensate for production increases," the union said.

Elsewhere, Kaydon Engineering Corp. was able to reduce prices on 90 sizes of thin section ball bearings last week when its employees (members of the International Assn. of Machinists) agreed to "increase productivity and accept lower incentive rates."

Reuther's bid to put his Auto Workers on a salary basis, observers say, may spark fireworks on the labor scene. The UAW

president also said he would press the companies for more job opportunities, either via a shorter work week or earlier retirement; higher supplemental unemployment benefits and extension of them from 26 to 52 weeks; full company payment of health insurance; a voice in the investment

of pension trust funds, and other fringe benefits.

His achievements along these lines, when the UAW negotiations open in July, undoubtedly will be watched closely by other major unions with contract talks coming up later in the year and in 1962.

Welding Society Exhibition Reveals Trend Toward Compact Equipment

New York—Welding equipment makers are using electronic circuitry to pack more into smaller units.

Exhibitors here last week at the American Welding Society Show told PURCHASING WEEK that there is a growing tendency to compact equipment because:

- The smaller units are opening up new markets among small firms, because they're less expensive.

- Compact equipment is more versatile in industrial and military work where space is limited, as in shipboard work.

- Portable units eliminate the need for expensive fixed installations around the plant.

Air Reduction Co. said these advantages are especially important to small companies eager for subassembly contracts.

Aim for Low Cost Units

"Many companies anxious for this work," a spokesman said, "are forced to turn away because they aren't able to lay out \$3,000 or \$4,000 for a single welding station. We aim at providing low cost units which can be built up later with additional equipment as the need increases."

In line with this thinking, Air Reduction introduced a gas-shielded, metal arc welding package at the show for high-speed welding of stainless and mild steel, and aluminum. Cost is \$995. The simple unit requires no separate controls; the gun connects directly to the power source making operation extremely simple. A single control on the power source adjusts arc voltage while a knob on the gun regulates wire feed speed.

Emerson Electric Co. echoed Air Reduction in describing a new TIG welder, offering "compact design, simplified operation, and low cost." The company is offering it in 230-v. and 460-v. models, designed for a welding range of 13 amp. to 295 amp., priced respectively at \$450 and \$465. Vickers, Inc., also offered a compact unit, "the welding industry's first a.c.-d.c. arm welder with a 3-phase input."

Other Equipment

Other equipment offered as compact and particularly for use in small shops included a metal-cutter by the NCG Div. of Chemetron Corp., and a 100-lb. capacity positioner by the Ransome Co., of Scotch Plains, N.J. NCG's machine, a portable oxy-cutting unit, features simplicity ("It can be operated safely by unskilled labor," the company said) and low cost (approximately \$1,000).

Alloy suppliers are offering a number of new materials in various forms. Wall Colmonoy Corp. introduced its powder alloys in

a high viscosity vehicle for application by air gun, in production work, or by manual syringe for smaller jobs. The new form, the company said, will reduce alloying time by 50%.

Eutectic displayed a flux-coated alloy for silver brazing for use with such metals as copper, brass, bronze, and stainless steel. All-State Welding Alloys Co. showed alloys in new spooled form. The alloys included copper, silicon bronze, aluminum bronze, magnesium, phosphor bronze "C", and a range of ferrous alloys.

New Firm Introduces Solid-State Calculator

Los Angeles — Electrosolids Corp. has just developed a fully transistorized desk calculator that has no moving parts. The company claims that this is the first solid-state calculator on the market.

The new machine uses electrons to do work conventionally performed by gears and cams, goes through addition, subtraction, multiplication, and division almost instantaneously. Mechanical calculators take several seconds to complete some of their functions.

The 10-column model will sell for about \$495 and will be available late this year. It will be manufactured by Computron, an Electrosolids subsidiary.

Late News in Brief

Labor Dept. Forms Automation Office

Washington—The Dept. of Labor has formed an Office of Automation and Manpower to cope with the problem of technological unemployment. The new organization will develop "educational and guidance programs" to help displaced workers, and also formulate proposals for training and placement of both new workers and those who must find new jobs.

Bemis Cuts Bag Prices

St. Louis—Bemis Bro. Bag Co. cut prices on multiwall bags 5%–7%. The 7% reduction was for sewn open-mouth bags, the 5% cut applied to other types. St. Regis Paper Co. announced a flat 7% reduction on "all major items" of multiple bags, and other companies said they probably would be competitive. The Bemis move caught the industry by surprise. Most companies had noted firm prices and were not expecting a price cut.

Tin Oxide Prices Drop

New York—Tin oxide prices were cut 2½¢/lb. From the \$1.20/lb. peak for 100-lb. drums reached earlier in the week. New price of \$1.17½ was still ½¢/lb. higher than a week ago. The fluctuations followed changes in the price of the basic metal.

Bruce Boost Some Flooring Tags

New York—A 5% price increase in lower grades of oak wood flooring was made by E. L. Bruce Co., subsidiary of Empire National Corp. The increase follows other 10% to 15% hikes within the past 60 days and may be passed on to other grades of flooring, Bruce said.

U. S. Steel Cuts 410 Stainless Price

Pittsburgh—U. S. Steel Corp. followed the 10% price cut on 410 stainless steel initiated by Carpenter Steel Co. two weeks ago. Other producers, including Allegheny Ludlum Steel Corp. and Crucible Steel Co. had followed the Carpenter move earlier. U. S. Steel's action made it a certainty that the price reductions of 2½¢ to 3½¢/lb. would stick.

U. S. Rubber to Hold Prices

New York—U. S. Rubber Co. said it would keep list price increases on passenger and truck tires in effect "temporarily," in spite of failure of the rest of the industry to go along. However, it has instituted dealer discounts on a "day-to-day" basis to offset any losses in retail sales from the April 1 increase of 5% in passenger tires, and 2½% in truck tires.

The discounts restore the dealer buying price to the level before the increases went into effect. "We have an obligation to keep our dealers competitive," a U. S. Rubber spokesman said.

Price Changes for Purchasing Agents

Item & Company	Amount of Change	New Price	Reason
INCREASES			
Cutouts (flip-open and enclosed), GE.....	5%-8%	....	incr. costs
Fuse links, cable-type, 1-200 amps., GE.....	1.8%-5%	....	incr. costs
R salt, dry & paste, Gen'l Aniline, dms., lb.....	.03	\$1.11 & \$1.01	....
Portable compressors, Joy Mnfctg.....	3%-7%	....	incr. costs
Brass & bronze ingot, 85-5-5-5 gr., lb.....	.0075	....	incr. costs
Other grades, lb.....	.005	....	incr. costs
Muriate potash, agr. gr., July 1, West Coast, ton.....	\$1.80-\$1.83	....	....
REDUCTIONS			
Fortrel polyester, staple & tow, Celanese, lb.....	.06-.12	....	competition
Gasoline, New Eng., Mobil, dlr., tkwgn., gal.....	.008-.009	....	competition
Green fir lumber, Northwest mills, 1000 bd. ft.....	\$2.00	\$68.00	slower demand
Dimethylbenzyl carbinol, lb.....	.40	\$5.00	....
Gum rosin, crts., N. Y., Katy, Mary, cwt.....	.55	\$14.25	....
Nancy, cwt.....	.50	\$14.50	....
Window glass, cwt.....	.65	\$15.00	....
Water white, cwt.....	.75	\$15.25	....
Tall oil rosin, So., cwt.....	.160	\$12.15	....
Miniature ball bearings, N. Hamp. Ball Bearings.....	3%-7%	....	competition
Nylon, staple & tow, 6 deniers, DuPont, lb.....	.04-.15	.95-\$1.24	prod. econs.
Dacron, staple & tow, 6 deniers, DuPont, lb.....	.07-.17	\$1.14-\$1.44	competition
Marine diesel, La. Esso, bbl.....	.21	....	broaden market
Middle distillates, South, Esso, gal.....	.004-.005	....	competition
Beryllium powder, blend grade, brush beryllium.....	15%	....	broaden market
Ball bearings, thin section, Kaydon.....	to 24%	....	prod. econs.
Tin salts, pot, stannate, lb.....	.005	.805	metal ease
Sodium stannate, lb.....	.004	.668	metal ease
Tin crystals, anhyd. lb.....	.006	\$1.038	metal ease
Tin oxide, 100-lb. dms., lb.....	.025	\$1.175	metal ease
Multiwall paper bags, Bemis Bro.....	5%-7%	....	competition
Mercury, 76-lb. flask.....	\$4.00	\$202.00	good supply

Management Spelling Out Definitions of Honesty, Ethics

(Continued from page 1) means the use by an employee of his position in a company for personal gain or benefit with or without detriment to the company. However, in practice, policy statements have narrowed it down to mean:

- No investment by an employee or spouse in suppliers, except stock ownership in a firm traded on a recognized stock exchange.

- No employee may accept a position as an officer or director in a supplier.

- No employee may accept money, fees, loans, or excessive gifts from suppliers. (Some have forbidden all gifts.)

But ethics on paper are only as good as their enforcement. Checks on compliance with company policy have taken two forms: questionnaires filled out by key personnel including purchasing directors, and reviews of internal controls by corporation accountants during annual audits.

Neither is fool-proof. John H. Regazzi, Price Waterhouse & Co. regional manager, points out, "Conflict of interest depends on the individual's ethics, but management has to take reasonable steps to insure compliance with company policy. So far, there is no perfect method to uncover all conflict of interest."

Questionnaires, like income tax returns, are really self-reporting instruments. And although not in themselves assurance of innocence, they can forcibly back up company policy statements if doubt exists among employees.

Auditors, too, are getting into the policing of business ethics. As part of the annual certification of a company's financial report, accountants are making investigations of internal controls to check weaknesses that may lead to

Grand Jury Begins Probe Of Brass Industry Prices

Hartford, Conn.—A federal grand jury probe into the brass industry began here last week.

John J. Galgag of the Justice Dept.'s New York antitrust office, who is presenting the government's case, said the probe would cover the "whole range of possible antitrust violations."

The probe will concentrate more on pricing policy than on the issue of monopoly. Companies have been required to submit answers to a questionnaire which asks for detailed replies on how prices are determined, as well as answers to such questions on pricing and government bids as:

- Do you discuss prices with any of your competitors?

- Do you meet with any of your competitors?

- What bids have you submitted on government contracts?

- How did you arrive at the amounts you bid?

- What contracts have been awarded to you?

Only one or two questions deal with the competitive position of small mills to producer-owned mills. This issue has been the subject of several government antitrust suits over the past few years.

breaking policy rules. Here's what the accountant looks for in purchasing:

- Large dollar value purchases made without competitive bids.
- Purchasing, receiving, accounting functions not separated.
- Purchase orders not reviewed by others not directly responsible for these transactions.
- No defined pyramid of authority for approving all important purchases.

Another means of getting more mileage out of ethics policy is through an intracompany communications network. Some firms have set up a system in which employees report to their supervisors any doubtful situations or foggy understanding of policy. Supervisors then prepare a written report and send it to a central gathering point, usually the accounting department. Using these written reports as a guide, the company can review periodically the effectiveness of its policies and straighten out any weak spots.

Intramural communication is not the only means of keeping the spotlight on conflict of interest. To throw a wider circle of light, some companies have introduced policy letters to vendors. These letters are usually a digested statement of the firm's code, or in some cases, a copy of the entire policy statement.

Warning to Vendors

A mining company recently sent letters containing this polite warning to its vendors: "Procedures have been instituted within the company to provide means for our employees to discuss, with appropriate officials, situations which could be construed to be in contravention of our conflicts of interest policy."

This kind of letter serves two aims.

First as an outside check, a supplier may call attention to purchasing practices in the company that he feels are inspired by conflict of interest, especially if the situation adversely affects the vendor's position.

Second, if the vendor is involved in breaking company rules through kickbacks or unreasonable gift giving, he'll not be able to claim ignorance of the policy when the boom falls and he loses a customer.

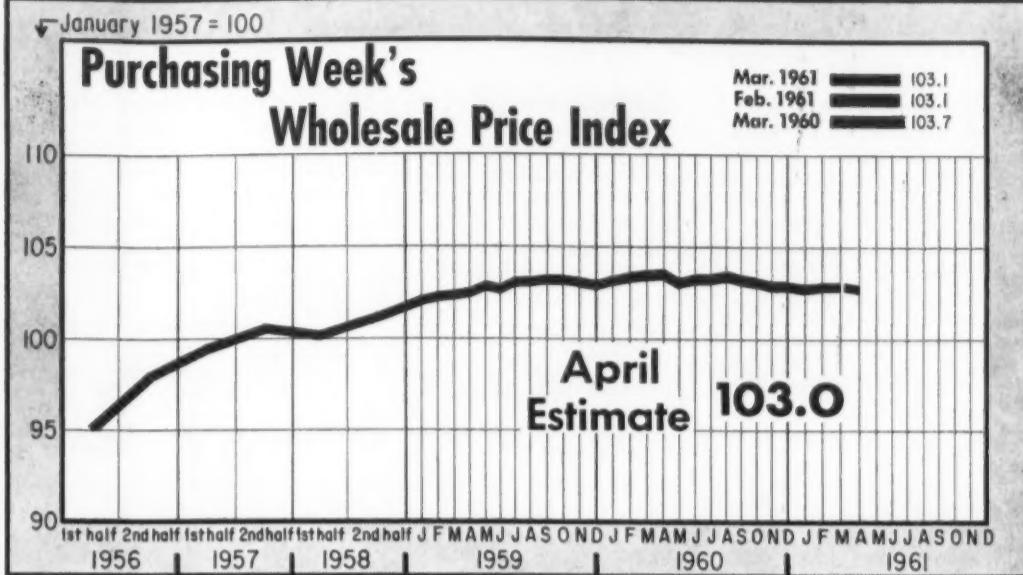
Detection

All internal controls, however, have a common drawback—detection. Advises accountant Regazzi, "A company should not look exclusively at the stereotyped situations. Instead, ask, 'Where are we susceptible?' This means any area involving a contract resulting in a monetary charge to the company is potentially dangerous."

Another corporation accountant adds, "In the final analysis, you're dealing with the human element. There never has been an easy way to check dishonesty."

But the need to avert hanging out corporate dirty laundry publicly has been a strong incentive, if any was needed, to codify business ethics. These events recently have highlighted the scramble to shore up weak points in company honesty:

- Westinghouse Electric Co.



Scattered small price cuts and boosts cancelled each other out last month to keep the PW wholesale price index stable at 103.1. Leather tags showed the sharpest gain—2.6%—which was offset by slight drops in cotton and synthetic textile prices. Inorganic chem-

icals rose, but prices eased for organic chemicals as coke-oven products became more plentiful. The next index should be lower with steel and petroleum and some paper product price reductions outweighing firmer building materials tags.

This Month's Industrial Wholesale Price Indexes

Item	Latest Month	Month Ago	Year Ago	% Yrly Change	Item	Latest Month	Month Ago	Year Ago	% Yrly Change
Cotton Broadwoven Goods	96.9	97.1	105.4	-8.1	Pumps & Compressors	112.6	112.6	112.2	+ .4
Mammade Fiber Textiles	93.8	94.4	96.7	-3.0	Industrial Furnaces & Ovens	122.2	122.2	121.3	+ .7
Leather	113.5	110.6	116.6	-2.7	Industrial Material Handling Equipment	107.8	107.6	105.8	+ 1.9
Gasoline	99.6	99.6	94.0	+ 6.0	Industrial Scales	115.7	115.7	115.7	0
Residual Fuel Oils	82.6	82.6	73.0	+13.2	Fans & Blowers	103.9	103.9	104.5	- .6
Raw Stock	112.2	112.2	105.9	+ 5.9	Office & Store Machines & Equipment	105.5	105.5	104.8	+ .7
Lubricating Oils	104.2	103.5	102.8	+ 1.4	Internal Combustion Engines	104.9	104.9	103.6	+ 1.3
Inorganic Chemicals	97.5	97.8	99.4	-1.9	Integrating & Measuring Instruments	121.1	122.2	119.3	+ 1.5
Organic Chemicals	106.4	106.4	103.4	+ 2.9	Motors & Generators	100.9	100.9	104.6	- 3.5
Prepared Paint	92.1	92.1	92.8	- .8	Transformers & Power Regulators	91.8	90.9	99.2	- 7.5
Tires & Tubes	110.2	110.2	105.6	+ 4.4	Switch Gear & Switchboard Equipment	106.3	106.3	106.8	- .5
Rubber Belts & Belting	104.5	104.7	107.0	- 2.3	Arc Welding Equipment	105.5	105.5	106.5	- .9
Lumber Millwork	95.6	95.7	99.8	- 4.2	Incandescent Lamps	131.0	130.9	130.9	+ .1
Paperboard	106.3	106.3	105.2	+ 1.0	Motor Trucks	105.6	105.6	106.2	- .6
Paper Boxes & Shipping Containers	103.4	103.4	101.9	+ 1.5	Commercial Furniture	106.2	106.2	106.6	- .4
Paper Office Supplies	108.8	108.8	109.2	- .4	Glass Containers	101.3	101.3	105.8	- 4.3
Finished Steel Products	108.5	108.5	107.9	+ .6	Flat Glass	97.6	97.6	99.7	- 2.1
Foundry & Forge Shop Products	106.2	106.2	105.0	+ 1.1	Concrete Products	104.2	104.2	104.3	- .1
Nonferrous Mill Shapes	94.3	95.0	100.1	- 5.8	Structural Clay Products	107.6	107.6	107.2	+ .4
Wire & Cable	86.7	86.7	72.9	+ 6.7	Gypsum Products	106.1	106.1	104.7	+ 1.3
Metal Containers	112.8	112.3	111.0	+ 1.6	Abrasive Grinding Wheels	94.4	94.4	94.8	- .4
Hand Tools	101.4	101.4	102.8	- 1.4	Industrial Valves	114.1	114.1	116.8	- 2.3
Boilers, Tanks & Sheet Metal Products	112.3	112.3	106.3	+ 5.4	Industrial Fittings	90.3	90.3	107.6	- 16.1
Power Driven Hand Tools	110.9	110.9	108.1	+ 2.6	Anti-friction Bearings & Components	89.8	89.8	91.9	- 2.3
Small Cutting Tools	118.3	118.5	115.4	+ 2.5					
Precision Measuring Tools	109.5	109.5	109.5	0					

President Mark W. Cresap, Jr., in answer to a question of a stockholder, disclosed at the company's annual meeting this month that the firm's accountants have investigated some 3,600 employees for conflict of interest practices. Result: All came out with a clean bill of health, Cresap said.

Westinghouse also initiated a nationwide management lecture series in an effort to drive home compliance with antitrust laws among employees at high levels of management and marketing. So far the group has held 32 training sessions.

Joslyn Manufacturing & Supply Co., one of the 29 electrical equipment makers fined for price fixing, has hired a former government antitrust official who was instrumental in uncovering the conspiracy charges. His job will be to launch a program of compliance with antitrust laws and act as counsel for company employees.

In a move to prevent a recurrence of antitrust violations, General Electric Co. announced that it will undertake "a more penetrating legal review of operations" using new auditing techniques to ferret out situations which might lead to violations.

Under the new scheme, businesses can subtract from their tax bill a total of the following credits:

- 10% of the first \$5,000 spent on new plant and equipment, without regard to normal depreciation allowances.

- 6% of spending in excess of 50% of the depreciation allowance and not more than 100%.

- 15% of any spending beyond that. (Maximum reduction in tax liability would be 30%.)

Thus, a businessmen spending \$5,000 could deduct \$500.

A larger company spending \$50,000, which already has a depreciation allowance of \$60,000 a year, could deduct 6% of \$20,000 (the amount by which \$50,000 exceeds half of its depreciation allowance)—or \$1,200. In addition it can deduct 10% of its first \$5,000, just as the smaller firm does.

The Treasury will make up the tax loss by several steps which hit business in other areas:

- Eliminate foreign "tax havens" and tax deferral privileges on money earned abroad, except in undeveloped countries, and other tightening up of foreign tax treatment.

- Withhold taxes on all dividends and interest, and repeal of \$50 exclusion and 4% tax credit on dividends.

- Permit capital gains treatment on sale of depreciable property only on excess of sales price over original cost (rather than over depreciated costs).

New Administration Tax Program Designed to Stimulate the Economy

(Continued from page 1)

the deal as simply "taking away with one hand what it gives with the other."

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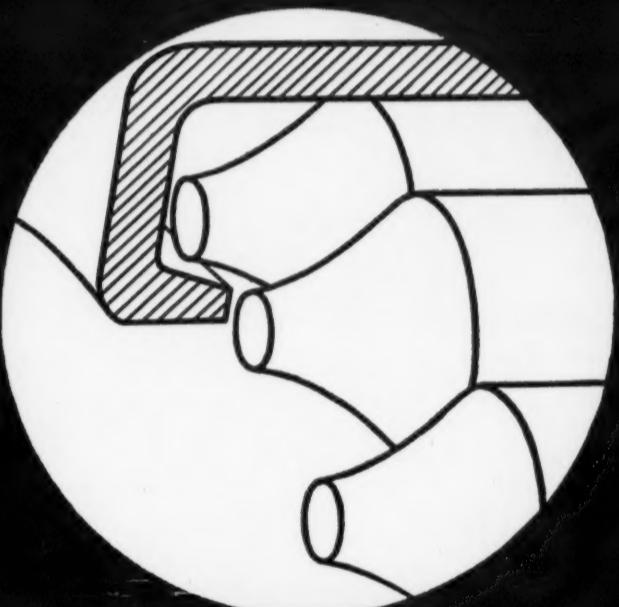
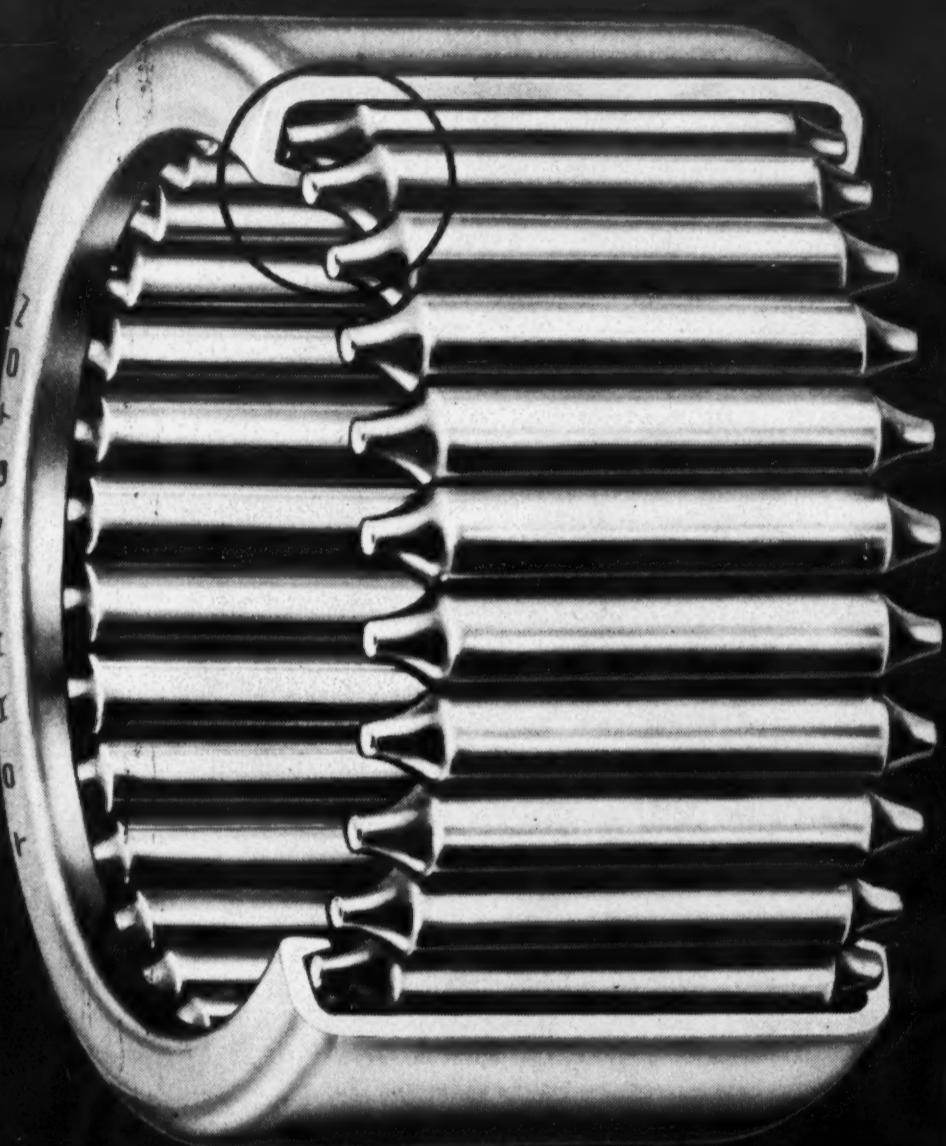
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